The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1739.—Vol. XXXVIII. LONDON, SATURDAY, DECEMBER 19, 1868. (WITH SUPPLEMENT) {STAMPED ... SIXPENCE, UNSTAMPED..FIVEPENCE

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1842.)

Mr. CROFTS transacts business in the way of PURCHASE or SALE of every description of stocks, but particularly BRITISH MINES, at net prices. All orders meet with the utmost punctuality, and advice given as to the nature and eligibility of INVESTMENTS when required.

Tin has advanced about £10 per ton, and both buyers and holders of tin mining shares will do well by continuing to hold them, as the market is more likely to further advance than to fall. Those who have not bought should buy at once into such mines as have already improved in value from the rise in tin. Mr. CROFTS recommends, therefore, the purchase into all dividend and sound progressive tin mines.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET, has FOR SALE the following shares, free of commission :—

50 Anglo-Brazil., 12s. 3d.	35 East Grenville, £3 11 3	35 Royalton, 30s.
50 Australian United (Gold), 18s.	75 Frontino, 5s.	20 South Darren, 33s. 9d
	25 Frank Mills, £3 7s. 6d	15 St. John del Rey, £16.
25 Brynpostig, 37s. 6d.	50 Gawton, 28s. 6d.	50 So. Condurrow, 18s 9d
20 Chiverton, £5⅞.	15 Great Laxey, £20½.	5 Tincroft, £16⅞.
30 Chontales, £2 11s 3d	20 Gt. No. Downs, £2¼.	50 Wt. Drake Walls, 8s 6
50 Carn Camborne, 11s 6	5 Linares, £3¼.	50 West Wh Kitty, 7s 6d
50 Caldbeck Fells, 11s 3d	25 Marke Valley, £9¼.	40 Wh. Grenville, 33s.
30 Drake Walls, 17s. 6d.	50 No. Treskerby, 12s. 6d	2 Wheal Seton, £67½.
50 Don Pedro, £3 18s.	30 New Lovell, 32s.	20 Wh. Chiverton, £5⅞.
15 East Lovell, £9½.	70 Prince of Wales, 29s 3	5 W. Rose Down, £11⅞
20 East Caradon, £8.	100 Princess of Wales, 4s.	25 Wheal Uny, £4⅛.

BUYER of Great North Laxey, at 6s. ; and Snaefell, at 10s.

MR. WILLIAM WARD,
STOCK AND SHAREDEALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MESSRS. WILSON, WARD, AND CO.,
STOCK AND SHAREDEALERS,
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. JAMES HUME, STOCK AND SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.
Orders in the following shares are requested :—

Prince of Wales, 30s.	Wheal Uny, £4.	Drake Walls, 18s. 6d.
East Caradon, £7⅝.	East Grenville, £3¼.	North Treskerby.
South Condurrow, 20s.	Grenville, 32s.	Don Pedro, £3⅛ prem.
Chiverton, £6.	Crebor, 10s.	Chontales, £2⅜.

Mr. HUME has special information respecting several mines likely to have a great rise in price.
Buying and selling orders executed on the closest margins.
Bankers: The London Joint-Stock Bank.

MR. J. H. COCK, STOCK AND MINING SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.
Fifteen years' experience in Cornwall and London.
BUYER or SELLER of South Condurrow, North Treskerby, Margaret, Rosewall Hill, Chiverton, and every other description of mining shares, at close market prices.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER,
No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS in West Godolphin, Summer Hill, North Pool, New Lovell, South Condurrow, Bryn Gwiog, Mary Ann, Wheal Agar, Great Laxey, Great Vor, and South Merilyn.
For immediate purchase, South Merilyn shares are recommended.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.
Has BUSINESS as BUYER or SELLER in all British and Foreign Mines.
SPECIAL BUSINESS in Frontino, and Prince of Wales.
Bankers: City Bank, Finch-lane, E.C.

Established Fifteen Years.

MESSRS. WARD AND JACKMAN,
STOCK AND SHAREDEALERS,
No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.
Closing prices, Friday Evening, Dec. 18.

Carn Brea	£ 20	to £ 22½	New Wheal Seton	£ 65	to £ 70
Chontales	2⅛	„ 2¾	North Roskear	9	„ 10
Chiverton	5½	„ 6	North Treskerby	11s	„ 13s
Chiverton Moor	5½	„ 6	Prince of Wales	27s 6d	„ 29s 6d
Cook's Kitchen	12½	„ 13	Providence	32½	„ 35
Devon Great Consols	310	„ 320	South Condurrow	17s	„ 18s 6d
Don Pedro (prem.)	3	„ 3¼	St. John del Rey	15	„ 16
Drake Walls	18s	„ 20s	Stray Park	4½	„ 5½
East Caradon	7⅜	„ 8½	Tincroft	16¾	„ 16⅞
East Grenville	3⅝	„ 3⅞	West Chiverton	60	„ 61½
East Lovell	8¾	„ 9¼	West Drake Walls	6s	„ 8s
Frank Mills	3	„ 3¼	West Wh. Frances	40	„ 42½
Frontino and Bolivia	8s	„ 10s	W. Wh. Seton (ex div.)	185	„ 190
Great Laxey	20	„ 21	Wheal Grenville	31s 3d	„ 33s 9d
Great Wheal Vor	11½	„ 12	Wh. Kitty (St. Agnes)	3½	„ 3¾
Herodsfoot	43	„ 45	Wheal Mary Ann	20	„ 21
Marke Valley	8¾	„ 9¼	Wheal Uny	3¾	„ 4

Messrs. WARD and JACKMAN are DEALERS in all the above-mentioned mines.
Messrs. WARD and JACKMAN have daily information from the principal seats of mining, which is at the service of those who may honour them with their confidence.
Dec. 18. Bankers: London and Westminster, Lothbury.

MR. C. A. POWELL, STOCK AND SHAREDEALER,
No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C., BUYER or SELLER of shares in the leading Dividend and Progressive Mines.
References exchanged.
Price List forwarded on application.
Bankers: City Bank, Finch-lane, London, E.C.
*** SPECIAL BUSINESS in Frontino, Don Pedro, Chontales, Del Rey, Caldbeck, Prince of Wales, and North Treskerby.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 14 years), has FOR SALE the FOLLOWING SHARES, at net prices :—

50 Anglo-Brazilian, 11s.	50 Gen. Brazilian, 7s. 9d	50 Tamar Valley.
30 Brynpostig, 32s. 6d.	60 Glan Alun, 12s.	50 Taquaril Gold, 4s pm.
20 Caldbeck Fells, 11s 3d	5 Great Vor, £11 16s 3d	1 Wt. Chiverton, £60⅞
40 Chontales, £2 12s 3d	10 Marke Valley, £9¼.	2 West Frances, £41.
10 Chiverton, £5¾.	1 New Seton, £67.	1 Wt Seton, £189, ex div
10 Chiv. Moor, £5 14s 6d	5 North Roskear, £9½.	50 West Godolphin, 20s 6
1 Devon Gt. Con., £314	20 North Treskerby, 13s.	40 Wh. Grenville, 32s 3d
20 Don Pedro, £3 3 9 pm.	25 North Crofty, 27s. 6d.	10 Kitty, St. Agnes, £3⅝
30 Drake Walls, 18s. 9d.	50 Prince of Wales, 28s 9	3 Wh. Mary Ann, £20¼
5 East Caradon, £7 19	40 South Condurrow, 18s	20 Wheal Uny, £3⅞.
25 E. Grenville, £3 8s 9	5 St. John del Rey, £15 11s. 3d.	50 Worthing, 5s. 6d.
5 East Lovell, £9 2s. 6d		1 Wheal Seton, £64⅞.
15 East Wh. Reeth, 22s.	10 Stray Park, £5 1s. 9d.	20 Yudanamutana, £2⅛
	5 Tincroft, £16¼.	

And is a BUYER of 3 Providence, 100 Okel Tor, 5 Summer Hill, and 5 Great Laxey shares at market prices.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is a SELLER at net prices of :—25 New Lovell, 36s. 9d. ; 20 South Condurrow, 20s. : 35 Drake Walls, 18s. ; 10 East Caradon, £8¼ ; 20 Gawton, £2½ ; 30 North Downs, 12s. 6d. ; 30 Prince of Wales, 25s. 9d. ; 200 Glan Alun, 13s. ; 50 Wheal Grenville ; 3 West Chiverton, £63 ; 70 Great South Chiverton ; 5 Chiverton Moor, £6¼ ; 20 Brynpostig, 36s. ; 2 Wheal Seton, £64½ ; 45 Caldbeck Fells ; 100 North Jane ; 20 East Grenville, £3 8s. 9d. ; 85 East Reeth ; 10 Caradon Consols, £8 ; 200 Princess of Wales, 4s. 3d. ; 110 Tamar Valley ; 70 Redmoor, 3s. 9d. ; 20 South Herodsfoot, 25s. ; 20 Rose and Chiverton ; 80 Maudlin, 23s. 3d. ; 30 North Levant ; 5 Marke Valley, £9 3s. 6d. ; 25 Chiverton Valley, £3 3s. 9d. ; 20 East Chiverton ; 50 Colquite and Callington, £2 1s. 9d. ; 10 Great Laxey, £21½ ; 100 West Kitty ; 15 Wheal Kitty (St. Agnes), £3¾ ; 60 General Brazilian, 8s. 6d. ; 50 Anglo-Italian.
SPECIAL BUSINESS in Royalton, Lovell Consols, Macaf-y-Safn, Minera, Rose and Chiverton, West Caradon, Colquite and Callington, and North Jane.

CORNISH AND FOREIGN MINES—TO SHAREHOLDERS AND OTHERS.
PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, Dec. 18, No. 511, Vol. X., price 6d. each copy, forwarded on application, contains information on the following mines :—

North Crofty.	Botallack.	Trumpet Consols.
Prince of Wales.	Providence.	Carn Brea.
Great Western Mines.	Tincroft.	West Frances.
Wheal Uny.	Great Vor.	New Wheal Lovell.
Wheal Jane.	Wheal Owles.	East New Lovell.
East Wheal Lovell.	East Pool.	Great Laxey.
East Trumpet.	St. Ives Consols.	Devon Great Consols.
Dolcoath.	Wheal Margaret.	West Chiverton.

With Special Notice on the Great Western Mines, Leading Articles on the Mining Share Market, the Price of Tin Ores, Cornish Standard, &c., &c.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to *bona fide* investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.
PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON
(three doors only from Hercules-passage, entrance to the Stock Exchange).
Twenty-four years' experience.
(Two in Cornwall and Twenty-two in London.)
Bankers: The Alliance Bank, and the Union Bank of London.
References given and required (when necessary) in all the principal towns of the United Kingdom.

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s. ; by post, £2 5s. ; monthly subscription—by post, 4s. ; single copy, 1d. ; by post, 2d.
PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

MR. EDWARD COOKE,
STOCK AND MINING SHAREDEALER, 76, OLD BROAD STREET (and Mining Exchange), LONDON, E.C., has BUSINESS in the following Mines at current market prices :—

West Chiverton.	South Darren.	Chiverton.
East Trumpet Consols.	Drake Walls.	South Great Work.
Prince of Wales.	South Condurrow.	East Caradon.
East Lovell.	Trumpet Consols.	West Great Work.
Frank Mills.	New Wheal Lovell.	West Drake Walls.
Chiverton Valley.	Great Wheal Vor.	Great Laxey.

References given.
Price-list sent free on application.
Bankers: Alliance Bank.

MR. W. H. CUELL,
No. 42, CORNHILL, LONDON, E.C.
WANTED TO BUY, a few Anglo-Argentine shares. Sellers state lowest price, &c.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, LONDON, E.C., DEALS in all STOCKS AND SHARES, either for cash or the fortnightly settlement.
SPECIAL BUSINESS in the following Gold Mines :—

Don Pedro.	General Brazilian.	Frontino and Bolivia.
Taquaril.	Rossa Grande.	Chontales.
Port Phillip.	Anglo-Brazilian.	

Bankers: The Alliance Bank.

MR G. D. SANDY, STOCK AND SHAREDEALER,
No. 48, THREADNEEDLE STREET, LONDON, E.C.
Mr. G. D. SANDY has a limited number of shares for sale in the following mines, and can furnish full particulars concerning the same :—Tamar Valley, East Caradon, South Condurrow, New Clifford, Lovell Consols, Great South Chiverton, and Prince of Wales.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS, 2, BUCKLERSBURY, LONDON, E.C.
SPECIAL BUSINESS in the following shares :—

Don Pedro.	Great Vor.	West Chiverton.
Great South Chiverton.	East Chiverton.	Prince of Wales.
Great Laxey.	Nangiles.	Wheal Mary Ann.
Lovell Consols.	Tamar Valley.	Trelawny.

And we are always in a position to deal in any other Stock at close market prices.
SPECIALLY RECOMMENDED for immediate purchase—Great South Chiverton, North Jane, West Chiverton, and Lovell Consols.

The Monthly "INVESTMENT CIRCULAR" (post free on application), contains reliable and important information as to the value and prospects of many dividend and progressive mines. It should be consulted before investing.
Bankers: London and Westminster.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C.
T. R. has BUSINESS in the following mines, at close market prices :—

Bedford United.	Devon Consols.	South Caradon.
Chiverton.	East Grenville.	Tincroft.
Chiverton Moor.	East Caradon.	West Chiverton.
Chontales.	East Basset.	West Seton.
Carn Brea.	Great Wheal Vor.	Wheal Grenville.
Cook's Kitchen.	Marke Valley.	Wheal Seton.
Drake Walls.	North Roskear.	Wheal Uny.

T. R. is in a position to recommend several progressive mines that are safe for a great rise during the coming year. Having had these mines inspected by competent agents, and having also inspected them myself, and from my practical knowledge of mining in all its branches, I have great confidence in recommending the mines I have selected for an advance in price. Those who have acted upon my advice during the last twelve months have no reason to complain ; and I never saw a better opportunity offered for making money in mining than the present.
An OFFER WANTED for 70 West Prince of Wales, 160 Princess of Wales, 30 Gawton, 350 Bedford Consols, 110 West Drake Walls, 90 Frontino and Bolivia, 13 Great North Downs, 300 Great South Chiverton, 40 North Treskerby 155 East Carn Brea, 170 Tamar Valley, 500 South Grenville, 7 Wheal Buller, 25 Wheal Agar, 220 Crebor, and 130 North Downs.
Parties desirous of purchasing the whole or any part can be dealt with on liberal terms.
Money advanced to any extent on good mining shares.
Office hours Ten to Four. Bankers: Bank of England.

THE MINING INVESTORS' ASSOCIATION.
For the PURPOSE of COLLECTING and DISSEMINATING TRUTHFUL INFORMATION on all MATTERS RELATING to the WORKING as well as the FINANCIAL MANAGEMENT of MINES.
To PURCHASE and SELL MINING STOCK of every description.
To MAKE ADVANCES, at a moderate rate of interest for short periods, upon MINING STOCKS having a market value.
The services of some of the most truthful and experienced Inspecting Agents have been specially retained for this Association.
References to bankers and others given.
Address,—THE MANAGERS, at the Office of the Association, 26, Nicholas-lane, Lombard-street, E.C.

INVESTMENT, LOAN, AND BANK AGENCY.
Established 1839.
PUBLIC SECURITIES of every description Bought and Sold upon advantageous terms. Facilities for payment, and every reliable information afforded to Investors.
LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.
Five per cent. allowed upon DEPOSITS of all amounts.
Money and Finance Agency Business generally undertaken.
RICHARD TAYLOR AND COMPANY.
No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. CHARLES THOMAS,
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps,
MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE
PRINCIPAL MINES and MINING DISTRICTS of CORNWALL and DEVON.
Published by CHARLES THOMAS,
At No. 3, Great St. Helen's, London, E.C.

MR. JOHN GIBBS (late LANE and GIBBS), 2, ROYAL EXCHANGE, LONDON, E.C.
MARKE VALLEY, EAST CARADON, WEST ROSE DOWN, and CARN CAMBORNE MINES.—Although difficult to effect transactions in these mines at times on the Mining Market the advertiser is always in a position amongst his correspondents to buy and sell at close prices, and does not hesitate to recommend a purchase in each and all of the above for a great advance in price and large dividends.
GREAT LAXEY and SOUTH DARREN. SPECIAL BUSINESS in these mines.
Bankers: London and County Bank.

Established Twelve Years.—Twenty-four Years' Experience.
MR. F. W. MANSELL, 44, THREADNEEDLE STREET, LONDON, E.C., has the following shares FOR SALE, free of commission :—

BRITISH MINES.			FOREIGN MINES.
25 Chiverton Moor, £6¼	100 So Condurrow, 21s 6d		100 Gen. Brazilian, 3s. 9d
10 East Basset, £9⅜.	100 Prince of Wales, 29s 6		premium.
5 Cargoll, £20.	10 Wheal Chiverton, £6.		75 Anglo-Brazil., 11s. 6d
1 Botallack.	100 W Prince of Wales, 9s		50 Don Pedro.
10 Marke Valley, £9¼.	35 New Lovell, 32s. 6d.		150 Frontino and Bolivia,
3 Wt. Chiverton, £60½.	50 North Treskerby, 13s.		9s. 6d.
50 Wh. Grenville, 32s. 6d	5 Great W. Vor, £12¾.		250 Worthing, 7s. 6d.
	50 Great So. Chiverton.		
	1 Wheal Seton, £66.		

Mr. F. W. MANSELL is always in a position to BUY or SELL every description of Stocks and Shares, for cash or account, at close market prices.
The following are specially recommended for immediate purchase :—East Caradon, Mary Ann, South Condurrow, Tamar Valley, Wheal Seton, Great South Chiverton, and Drake Walls. Every particular may be had on application.
Since my recommendation last week East Caradon have advanced from £5¾ to £8, and will go much higher. The mine is improving daily.
Bankers : London Joint Stock Bank.

MATTHEW GREENE, STOCK AND SHAREDEALER,
1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.
The following extracts from the reports from TAMAR VALLEY and NEW CLIFFORD MINES will, I think, fully justify me in recommending the purchase of the shares at once.
TAMAR VALLEY.—"We are progressing satisfactorily, and shall in the course of a week commence raising silver-lead ore."—(Signed) JOHN GOLDSWORTHY.
NEW CLIFFORD.—"I think from the size of the lode in the north cross-cut that all three lodes are forming a junction between the two elvan courses, and without a shadow of a doubt on my mind we are on the top of an immense course of copper ore."—(Signed) JOSEPH MICHELL.

MR. THOMAS THOMPSON, MINING OFFICES,
12, OLD JEWRY CHAMBERS, LONDON, E.C.
ROYALTON.—The steady increase in the price of tin is causing a great demand for shares in legitimate tin mines, and which, there can be little doubt, will become generally valuable. Investors, however, should be careful how they place money in deep and expensive mines, which can only pay profits with tin at high prices. They should rather seek an investment in those mines which, with extensive reserves, can pay profits with tin at its lowest price. Among the best of this latter class I place Royalton, and recommend the purchase of the shares wherever they may be met with. At their present price they are intrinsically very cheap indeed.

MR. EMANUEL BEAZLEY,
STOCK AND SHAREDEALER,
3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

MR. HENRY MANSELL,
44, THREADNEEDLE STREET, LONDON, has FOR SALE at net prices :—

80 Brookwood, £4¼.	5 Great Laxey, £20¾.	20 North Treskerby, 13s.
10 Chontales, £2⅜.	5 Great Wh. Vor, £12½	10 New Lovell, 32s.
30 Chiverton, £6.	5 Hodges' Distlly. (£20 paid, offer wanted)	70 Prince of Wales, 29s 6
20 Chiverton Moor, £6¼		5 West Chiverton, £61.
50 E. Grenville, £3 11s 3	10 Marke Valley, £9¼.	20 Wh. Grenville, 32s.

EAST CARADON, SOUTH CONDURROW, TAMAR VALLEY, and GREAT SOUTH CHIVERTON should be bought at once. A great rise must take place in these shares shortly.
PRINCE OF WALES MINE.—These shares are now at 29s., 30s., and parties who acted on my advice can now see the benefit derived from it.
GREAT WESTERN MINING COMPANY.—Mr. H. M. should be consulted before acting in these shares. Thirteen Years' Experience.
Bankers : London Joint-Stock Bank.
References exchanged.

THE OLD YEAR AND THE NEW.
Now in the press,
MR. J. B. REYNOLDS' "CIRCULAR," which contains—Particulars of Markets, Past and Future—the Position of the Metal Markets, Lead and Tin, as compared with Copper Mines—and other matters of great importance to the Investor.
To be had on application to Mr. J. B. REYNOLDS, Ethelburga House, Bishopsgate-street Within, London, E.C.

INTENDING INVESTORS.—The "FINANCIAL GAZETTE," published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to the SAFE EMPLOYMENT of CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.
6, Bond-court, Mansion House, London, E.C.
Bankers : Bank of England.

INVESTORS IN MINING COMPANIES.—Mr. CHRISTIAN recommends the immediate PURCHASE of NORTH LEVANT SHARES, whether bought to hold as an investment or to sell again. It is a splendid property, and dividends are close at hand. Although Mr. CHRISTIAN is the only person publicly recommending the purchase of shares in this sett, he does so with the greatest of confidence, feeling assured that those who buy now will do well.
ST. JUST.—At North Levant the prospects are favourable, and the return of ore sufficient to leave good profits. Messrs. Higgs and Son, the pursers, speak in the highest terms of this property.—*Vide* "Cornish Telegraph," Dec. 9, 1868.

CORNISH TIN MINES.—Before investing in ROYALTON, get full information about EAST ROYALTON, from
T. A. MUNDY AND CO., 38, BISHOPSGATE STREET WITHIN ; or
W. HANNAM AND CO., 449, STRAND.

CORNWALL HEMATITE COMPANY (LIMITED).—FOR SALE, TEN and FIVE SHARES in this company, £10 each, fully paid-up, at par. The shares are quoted at £2 to £2¼ prem. See previous *Mining Journals*.
Address—Mr. CUGNY, 5, Kinnerton-street, Wilton-place, Knightsbridge, London.

NORTH WHEAL ROBERT MINING COMPANY.—ALL PERSONS having CLAIMS against the above company, are REQUESTED TO SEND in PARTICULARS of the same to me, at 8, Austinfriars, London, forthwith.

MR. EDWARD BREWIS, STOCK AND SHAREDEALER,
PALMERSTON BUILDINGS, OLD BROAD STREET, LONDON, E.C. has business as BUYER or SELLER in the undermentioned mines at very favourable prices :—Colquite and Callington, Rossa Grande, Maudlin, Cornwall Hematite, Royalton, Sao Vicente, West Godolphin, Brynpostig, Don Pedro, East Lovell, Great Vor, Lucy Phillips, East Chiverton, Frontino and Bolivia, West St. Ives, Chiverton Valley, East Carn Brea, Summer Hill, Pestarena, Anglo-Brazilian, North Jane, Chiverton, South Condurrow, North Crofty, West Kitty, Lovell Consols, Prince of Wales, Glan Alun, East Bottle Hill, GREAT RHOSESMOR, EAST REETH, North Treskerby, Royalton, Tamar Valley, Great South Chiverton, and East Grenville.
OFFERS WANTED for 30 New Great Consols, 5 Mid-Wales, 10 Penhale United, and 20 Lovell Consols.
WANTED TO BUY—100 East Bottle Hill shares.

Original Correspondence.

IMPROVEMENTS IN THE MANUFACTURE OF STEEL.

The continuation of the experiments of Mr. David Kirkaldy for proving the tensile and resisting strength of iron and steel manufactured by the Heaton process has led to many enquiries as to the precise details of the invention, many persons having received the erroneous impression that he claims the exclusive right to use nitrate of soda for the conversion of iron into steel, although it has frequently been stated in the *Mining Journal* that Mr. Heaton's invention is for the process, and not for the materials. He has distinctly stated that he does not claim the use of the nitrates, otherwise than when they are used substantially and in the manner and by the means which he specifies, his claim being simply for the use by a certain special method, and with special apparatus, of nitrate of soda, or of nitrate of potash, to act upon cast or pig iron, when such iron is in a molten state, for the purpose of converting the same into steel. A more definite claim than this could not be desired, it, therefore, only remains to ascertain what are the special methods and the special apparatus to be employed.

The Heaton apparatus consists essentially of a cupola and a converter, the latter placed in front of and at a lower level than the former; a reverberatory furnace being placed still more forward, and at a still lower level. The iron to be treated is charged into the cupola, which is provided with tuyeres for supplying air, without any blowing engine. From the cupola the molten metal is run into the converter (which is practically a small cupola, with the lower portion divided from the upper by a perforated metallic plate, such lower portion being destined to receive the nitrate of soda requisite for effecting the conversion), and the steel produced is then conducted into the reverberatory furnace, wherein the process is finished. The portion of the converter which holds the nitrate of soda is removable from the main part of the vessel, to which it is attached by cramps, after the charge of nitrate has been introduced, and covered with the perforated metallic plate, which delays the action of the nitrate, until sufficient time has elapsed to get the whole charge of iron into the converter. The metal produced by the Heaton process is a high-class steel, and appears to combine all the advantages of the best puddled steel and the best cast-steel. The wrought-iron produced by his subsequent treatment of the crude-steel has a peculiar fibre, and the tests to which it has been subjected by Mr. Kirkaldy prove it to be very first-class quality.

In connection with the experiments, every care seems to have been taken to identify the bars tested with the raw material used to produce them; and the results obtained lead to the conclusion that a uniformly high quality exists in metal produced by the Heaton process, almost regardless of the quality of the pig-iron operated upon. Take, for example, the Heaton patent steel, and it will be found that when Round Oak pig was used the ultimate stress varied from 87,064 to 95,800 lbs., and averaged 90,478 lbs.; whilst the metal produced by the same process from the Butterley iron varied from 80,553 to 104·686 lbs., and averaged 92,992 lbs; and that from Dowlais iron varied from 77,616 to 102,900 lbs., and averaged 88,904 lbs., showing that in some cases the Dowlais bore a greater stress than the Round Oak, and came very near to the highest Butterley. Indeed, it is to the treatment of the cheaper qualities of iron that the Heaton process would seem to be especially adapted, for it is obvious that if a certain brand be saleable at a high price already, the profit derivable from raising it to a given fixed standard will necessarily be smaller than from raising a low-priced iron to the same standard: under any circumstances, there must be the difference between the prices of the raw material, which would in itself frequently be no inconsiderable amount. Even such cheap irons as the Middlesborough No. 4 and Dowlais No. 3, treated by the Heaton process, have been found to yield excellent results when tested by Mr. Kirkaldy's machinery. Of Heaton steel from Dowlais iron three half-inch bars were, on Saturday last, severely tested. No. 1 broke at a pressare of 109·136 lbs. to the square inch; bar No. 2 at a pressure of 110,880 lbs.; and bar No. 3 at a pressure of 118,074 lbs. to the square inch. Three ½-inch bars of Middlesborough No. 4 were next tested, and of these bars No. 1 broke at a pressure of 121,419 lbs. to the square inch; bar No. 2 at a pressure of 121,153 lbs.; and bar No. 3 at a pressure of 120,680 lbs. to the square inch, Mr. Kirkaldy expressing himself thoroughly satisfied with the results.

With the opinions of such men as Mr. Robert Mallet and Prof. W. Miller in its favour, the question as to the importance of the invention can scarcely be raised; more especially as each of these authorities states the considerations which have led him to form the opinions he has expressed. Mr. Mallet states that it enables first-class wrought-iron and excellent steel to be produced from coarse, low-priced brands of crude pig-irons, rich in phosphorus and sulphur, from which no other known process, not even Bessemer's, enables steel of commercial value to be produced at all, nor wrought-iron, except such as is more or less either "cold short" or "red short." Thus wrought-iron and cast-steel of very high qualities have been produced in his presence from Cleveland and Northamptonshire pig-irons, rich in phosphorus and sulphur, qualities from which neither first-class wrought-iron nor any kind of marketable steel had hitherto been thought to be producible. The result of these and of other considerations has been to lead Mr. Mallet to express his decided opinion that the patents need only energy and capital requisite to develope all they are capable of upon an adequate scale, to prove one of those metallurgic advances which leave their mark indelibly upon great national industries like that of iron in Great Britain.

Referring to the conclusions to be drawn from the results of Mr. Kirkaldy's testings, Mr. Mallet directs especial attention to the great uniformity exhibited both as to strength and toughness of the several classes of the material tested: the cast-steel quality bore a rupturing strain of 41¾ tons to the square inch, and the extension at rupture was nearly 7¼ per cent. of the original length, while with respect to the steel-iron quality the rupturing strain was 22¾ tons per square inch, and the extension at rupture exceeded 21 per cent., these steel-irons and cast-steels, manufactured both by rolling and by hammering having been converted from various makes of crude iron, from various and distant iron districts in Great Britain. As regards the steel-irons, the above averages compare most favourably with the very best, strongest, and toughest wrought-irons; and as respects the cast-steels show properties which rank them amongst the very best in the market produced by any process whatsoever. The steel-iron comes nearest in its properties to the Low Moor and the Bowling irons, the high values of which are universally known. The cast-steel closely approximates in strength and toughness to that supplied to commerce by the largest and best-known works which are now producing Bessemer steel, such being the steel best adapted for rails, machine uses, boiler-plates, ships, bridges, buildings, &c.

Nor is the opinion of Prof. Miller less glowing with regard to the value of the invention from a chemical point of view, than is that of Mr. Mallet from the mechanical. Prof. Miller carefully analysed samples of crude cupola pig, hammered crude steel, rolled steely iron, and slag from the converter. There existed in the cupola pig 1½ per cent. of phosphorus, 3 per cent. of silicon with a little titaneum, and 0·113 per cent. of sulphur. In the crude steel nine-tenths of the silicon and sulphur had been removed, and about four-fifths of the phosphorus, whilst in the steel-iron about one-half of the remaining silicon was removed, and of sulphur merely traces remained, the phosphorus being still in about the same proportion as in the crude steel. Prof. Miller observes that it will be obvious from a comparison of these results that the reaction with the nitrate of soda has removed a large portion of the carbon, silicon, and phosphorus, as well as most of the sulphur. The quantity of phosphorus (0·298 per cent.) retained by the sample of crude steel from the converter which he analysed, is obviously not such as to injure the quality. The removal of the silicon, he continues, is also a marked result of the action of the nitrate. It is obvious that the practical point to be attended to is to procure results which *shall be uniform*, so as to give steel of uniform quality when pig of similar composition is subjected to the process. The experiments of Mr. Kirkaldy on the tensile strength of various specimens afford strong evidence that such uniformity is attainable. The analysis of the slag showed that a large proportion of phosphorus is extracted by the oxidising influence of the nitrate, and that a certain amount of the iron is mechanically diffused through the slag. But, perhaps, the most important part of his report is that in which Prof. Miller gives his opinion that the process is based upon correct chemical principles, and that the mode of attaining the result is both simple and rapid. The nitric acid of the nitrate in this operation, he says, imparts oxygen to the impurities always present in cast-iron, converting them into compounds, which combine with the sodium, and these are removed with the sodium in the slag,—this action of the sodium being one of the peculiar features of the process, and gives it an advantage over the oxidising methods in common use.

THE HEATON STEEL PROCESS.

[The following letter has been addressed by Mr. Heaton to the *Times*, in reply to that from Mr. Bessemer; which appeared in the *Mining Journal* of Dec. 5.]

SIR,—In your Money Article of the 2d inst. I noted a most unwarrantable attack upon my process for manufacturing steel and wrought iron. I am surprised that a letter containing such a tissue of extraordinary allegations should have the authority of such a name as Henry Bessemer. The fact being as it is, however, I can but trust to your impartiality to concede me the privilege of reply. I am not used to letter writing, and my time is engrossed by visitors to the works; I shall, therefore, be as brief and clear as possible.

Your notice, Sir, of the Heaton process appeared on Oct. 21. Between this and Dec. 1, a period of six weeks, Mr. Bessemer was framing his attack upon me. You will, in common with the public, conclude that during this interval Mr. Bessemer was satisfying himself by personal inspection at my works of the correctness of the surmises he entertained, and which he has moulded into such reckless statements. The iron trade is quite familar with the fact that the works here and the process itself were freely open to all the world; that anyone could bring his own pig-iron and see it converted into steel under his own eye, take it away with him, forge it, and subject it to mechanical tests, add up the cost of material and labour, and form for himself a practical conclusion upon the merits of my invention, This is what the impartial mechanical journals during the last two months have told everybody they might do, and, not to particularise by name, what engineers and experts of the first position have done. It is what a French Commission at no longer date than next week is about to do, but it is exactly what Mr. Bessemer has omitted to do.

The main points, however, with which the commercial world are concerned in this matter are:—

Firstly,—Can Heaton make steel as good as Bessemer's, and at a less cost from the same materials, with a plant costing vastly less?

Secondly,—Can Heaton make good steel and iron from Cleveland and Northampton pig-iron—from brands, in short, that Bessemer cannot use, owing to the presence in them of large quantities of phosphorus and sulphur?

And, thirdly,—Can he make good steel and iron as cheap, or cheaper, from the commonest pig as Bessemer can from the most expensive brands?

The question of cost involved in the first proposition I will beg leave to treat, Sir, further on. That the plant of my process costs next to nothing as compared with Mr. Bessemer's is a positive fact. The whole of the small ironmasters can, owing to the trifling expense of my apparatus, enter now upon steel making, from which they have been prevented by insufficiency of means to acquire the Bessemer plant and utilise their brands. The first question resolves itself, therefore, for the present into my ability to make good steel cheaper than Mr. Bessemer from the same materials, and it has been begged altogether by Mr. Bessemer from the points of view both of theory and practice.

Mr. Bessemer starts boldly enough by denying that I make cast-steel at all, except by re-melting in crucibles. He defines cast-steel as "steel made into a perfectly homogeneous mass while in a fluid state." I affirm that my steel, which is made into a perfectly homogeneous mass while in a fluid state, is cast-steel. It suits Mr. Bessemer to deny the fact, and it does it on the strength of a theory that the charge in my converter becomes cooled by the evolution of the oxygen of the nitrate employed. But it is really absurd to suppose that the small amount of heat of temperature abstracted from the molten metal to supply the evolved oxygen with its heat of fluidity is not abundantly compensated by the heat of combination resulting from the union of the oxygen with the carbon of the pig. The cooling effect he refers to is far outbalanced in his own process by the cooling effected in his converter by the prodigious volume of cold air forced through it for from 20 to 40 minutes. Which will carry off most heat, such a volume of air, or the oxygen evolved from 224 lbs. of crude nitrate to the ton of steel?

Were my charge really cooled as represented by Mr. Bessemer, the desired amount of the contained carbon would not be eliminated. It would, consequently, remain cast-iron, and no crucible melting could ever produce the steel which Mr. Bessemer himself admits is undoubtedly the product of such re-melting. Mr. Bessemer's theory is wrong so far; yet as it is mere theory I could forgive him, but when he proceeds to theorise over the necessary admixture of my steel with slag, when passing through his theoretic process of cooling, I can no longer afford such indulgence. Mr. Bessemer says his steel is a solid homogeneous mass, entirely free from scoria or other impurities, whereas mine is not, owing, he says, to "mechanical admixture with the sand and soda." This is not the case. The slag, owing to its small specific gravity and to its extreme fluidity, rises to the surface of the molten metal, leaving the subjacent steel free from slag or scoria. But further on this point. It is not the fact that sand is necessarily employed; but were it so, the proportion of alkali is so great that the slack formed would be, and is, perfectly liquid, and is not mixed in any sensible quantity with the mass of steel in the converter, upon which it floats, as have already observed. Mr. Bessemer cannot but know that slag is found in his own converters, and is quite as, if not more, likely to contaminate his steel than the thin liquid slag produced in my process.

I have now sufficiently shown that it is not the fact, as Mr. Bessemer states, that "the mineral solidifies while in a state of mechanical admixture with the sand and soda, and thus, instead of obtaining fluid cast-steel by his process, Mr. Heaton obtains only a lump of spongy porous metal, intermixed throughout with slag and scoria." Steel from my converters passed at once either into my patent reverberatory furnace, or into a furnace of Mr. Siemens, there kept in a molten state, and thence run into ingots, is as homogeneous and to the full as good as Mr. Bessemer's. Mr. Bessemer knows that his own steel has been proved by Mr. Siemens to be greatly improved by being thus kept for some time in fusion after it has been poured out of his converter as Bessemer crude steel. It is, therefore, not a fact that my "crude metal can be made into cast steel only by resorting to the old and costly Sheffield process of melting in crucibles, which melting process alone costs 5*l.* to 6*l.* per ton." Here let me for one moment explain, for the question of cost is involved in this issue. Ordinary steel—such as is used, for instance, for rails, &c.—is neither in my process, nor in Bessemer's, nor in Siemens' produced by crucible melting at all. Crucible melting is, and has always been, indispensable for manufacturing best tool steel. Bessemer himself, when he makes tool steel, has to employ crucibles. How can I characterise Mr. Bessemer's endeavour to hide this fact from the public, and debit my process especially with the cost of 6*l.* per ton, common to any process the object of which is the manufacture of best tool steel, while he is silent on the fact that he himself must pay it as well? Indeed, I cannot understand how Mr. Bessemer can compare his ingots for rails—which Grüner and other authorities say are not steel at all, but homogeneous iron—with my crucible tool steel, which I am now selling at 50*l.* per ton.

Besides knowing that his own steel from the converter is not "tool steel" until after it has been re-melted in crucibles, Mr. Bessemer is very well aware that Mr. Siemens has proved that with his furnaces adapted for crucibles cast-steel can be melted therein at a cost of less than 1*l.* per ton; and that in the Siemens reverberatory furnace the cost of melting is scarcely half that. But, apart from such questions, I have but just turned out 40 tons of steel rails direct from my converter, without any re-melting, rails of a fine fracture, neither "fibrous" nor "laminated," but quite as homogeneous as Mr. Bessemer's, resisting the ordinary mechanical tests for steel rails, and produced at a cost with which no Bessemer steel can compete. Further, such orders are in course of execution.

The second point involves in its answer the, to Mr. Bessemer, unpleasant truth that I can by my patent process make good steel, and far more cheaply than he can out of pig-irons, such as those of Cleveland and Northampton, that he can make no use of. This it is which is the strength of my patent; this is the reason why it is to be preferred to "simply blowing cheap atmospheric air in numerous jets through the molten iron for 20 minutes," a process which has been proved powerless to eliminate the sulphur and phosphorus which are found in the great majority of pig-irons, and effectually debar them from the privilege of being converted into Bessemer steel. As bearing upon this convertibility of impure brands, it may be interesting to you, Sir, to learn that ½-in. bars of tool steel, made from Middlesborough No. 4 Clay-lane Forge Pig, bore, on being tested by Mr. Kirkaldy on Saturday last, a breaking strain which averaged upwards of 53 tons to the square inch.

The third question is the paramount one of cost. I have already exposed the fallacy of Mr. Bessemer's statement of the cost of re-melting. How little dependence can be placed upon the figures he has put forward can be inferred from his absolute silence on the waste in his process of pig-iron, of which the trade is perfectly well aware, a waste materially increasing, in so far as his product is concerned, the price of the expensive raw material he employs, to say nothing of the enormous cost of his plant and the outlay necessary for its maintenance. With reference to the nitrate employed, it is quite true that in Dr. Miller's Preliminary Report 270 lbs. of nitrate per ton are stated to have been used; but the circumstances under which the experiments of Dr. Miller were carried on were purely exceptional, and the proportion of nitrate per ton usually employed is not, as Mr. Bessemer states, 270 lbs. at a cost of 36s., but 224 lbs. at a cost of 28s. 6d., taking the extraordinary high prices of nitrate that at present prevail. Ten per cent. of nitrate is all that I have found necessary for the production of a ton of steel from inferior brands, and considerable less than 10 per cent. for superior brands.

That the inferences are erroneous which Mr. Bessemer appears to have drawn as to the cost of production of my steel and iron can readily be seen on reference to the certified cost-sheet.

When I call to mind the fact that long since the date of my patents Mr. Bessemer has himself taken out three patents for the employment of nitrates, I am astonished he should advance such objections to the value and importance of the Heaton process. I can but say that the products of that process are being almost daily subjected to tests which can be freely witnessed by Mr. Bessemer at Mr. Kirkaldy's Testing Works, at Southwark.

Finally, in thanking you for the space afforded me, I will only beg permission to add that I trust it has now been proved that there have been no "important misapprehensions prevalent with reference to the capabilities of my invention," but that, on the contrary, your notice of my process on Oct 21 was correct in every particular.

Langley-mill, near Nottingham, Dec. 10. JOHN HEATON.

THE MINES' INSPECTION OF STAFFORDSHIRE, AND THE BROMFORD COLLIERY PROSECUTION.

SIR,—In all controversial matters truth should be the primary element; and, unless "Observer" confines himself more to that purpose, I shall be compelled, in my own defence, to make known to your readers that which would, if he has any self-respect at all, be extremely unpalatable to him. I always court, rather than object to, open, fair, and honest criticism; and if "Observer" will adhere to the facts, and forget that he is so directly interested in the discussion, I have no fear for the result. The true cause of improved mining discipline can never be served by subverting facts, or by finding fault with the grammar of an opponent. *One* word misplaced in a hurried letter of a column and a quarter, without time to reperuse it, is certainly a very grave offence in newspaper *mining* controversy, and one, I think, that would have passed muster except under the observant eye of a *newspaper reporter*.

Let "Observer" deal with the ugly facts I laid before your readers, for not one of them has he at present attempted to deal with. He can leave his sermonising paragraph on Inspection Mining Law for an article he may send to papers other than those published for the *practical* discussion of mining.

"Observer" says "We are assured Mr. Johnson does not speak in the name of the association." I wonder where he got this assurance from, for in my letter he will find just the opposite expression. I there say, in speaking of the complaint alleged against the association, "whose express authority I have to deny it." Furthermore, I will now tell "Observer" that at a meeting of the association on the 2d inst. a resolution was unanimously passed, requesting me to answer "Observer" and "Surveyor's" letters. I deny that "a meeting of the members of the Coal Trade, presided over by Mr. W. M. Sparrow, conferred with the Inspector on the subject of the proposed amendments" before the Inspector had caused the new rules to be not only printed, but had surrepticiously attempted to get them adopted by the coalowners and agents.

In proof of which I have now before me a letter from one of the principal members of the committee of the trade, written October, 1866, wherein he says—speaking of the meeting referred to by "Observer"—"Primarily it has to be proved that Mr. Baker has the right, or has been instructed to move in the matter." What, then, becomes of the boasted conference of the trade *with* the Inspector? Why the very opposite took place. It was a conference of the Inspector *with* the trade, brought about by the objections raised by the Mine Agents' Association, and to what a local trade journal very properly called his "meddlesome and vicious interference."

The present special rules are quite sufficient in every respect, if the individual responsibility were better defined, and without this the law is ambiguous, and bears very unequally. In 1859 numerous meetings of the mine agents of this district were held, for the purpose of pressing upon the Government the necessity for individualising the responsibilities of all officers and workmen of a mine, and there was no member so noisy at those meetings, and urged it more, than Mr. Mr. Baker did; but this was before his candidature for the office of Inspector, and now he seeks, right or wrong, to fix the mine agent with every responsibility attached to the general and special rules.

We have only to look at Mr. Cope's case as an instance. Mr. Cope is consulting agent of the colliery, and visits the colliery once or twice a fortnight. He employs Mr. Callear as the *resident* mine agent of the colliery, whose duty it is to be constantly going up and down the pits, from Monday morning till Saturday night. Mr. Callear employs a butty, or contractor, to raise the coal at so much per ton, and who is constantly in the mine. Three unfortunately naughty lads, on a particular day, bent on a half-day holiday, being frustrated in their design, were yet determined to have their little out. At the midday meal these young rascals (although gone to their account, I cannot call them anything better) got by stealth out of the pit in which they had been working, and crawled through a stopping or gauging, scarcely large enough for a cat to get through, into the adjoining pit, with the hope of finding their way to bank by that pit. Here they were again foiled, by the sight in the distance of some workmen in the road, near the second pit bottom. At this juncture another circuitous route was attempted by which to reach the shaft, and in this they had to screw themselves edgewise through timbered roads, until they arrived at a staple, or jackey pit, up which they could not climb. At this point they were a distance of three hundred and fifty yards, or nearly a quarter of a mile, from their *proper* working place, in a strange pit, and in direct violation of one of the special rules, with which they must have been acquainted. Whether the main current of air was too cold for them, or what, was never ascertained, but next morning their lifeless bodies were found huddled together, a little way up a disused gate-road, a few yards out of the main current of air. Mr. Cope, the consulting agent, was summoned for a breach of the second general rule, as to fencing disused places. A long and searching enquiry was prosecuted, and in the end Mr. Cope was fined 20*l.* and costs, in all about 70*l.* I would, then, ask—Where is the *justice* or common sense in the decision? Mr. Cope suffers great personal anxiety and pecuniary loss, while the resident agent and the butty, if so minded, can afford to laugh at him, and be guilty of the same negligence the next day, without fear of punishment. To affect to amend mining discipline and satisfy the law by thus punishing Mr. Cope, is about as ridiculous as to use a 20-lb. sledge hammer to kill a gnat with. I say, punish every officer of a mine for an infraction of the rules applicable to himself, and then we should hear less of accidents in mines.

For "Observer" and "Surveyor" to make such a fuss about the

apparent descrepancy in the plans is foreign to the importance of the case in other respects, and is a peg constructed by themselves, on which to hang their excuse for attacking the association.

I should be glad to learn in what way the association has been "snubbed in high quarters." If it refers to the reply of the Home Secretary to Mr. Cope's application for a remission of the fine, I can only say there was no snubbing in it at all. It was simply this—that "having enquired into the circumstances of the case (meaning, I suppose, an application to the stipendiary and the Inspector), he (the Home Secretary) must decline to interfere in the matter."

As regards "Observer's" appeal to your readers for their decision whether he has "said anything wanting in courtesy" to the members of the Mine Agents' Association, I am also content to leave it with them, but I may add they will eventually be far better able to judge of "Observer's" motives when the whole truth is told.

Dudley, Dec. 17. HENRY JOHNSON.

ACCIDENTS IN COLLIERIES—PROVISION FOR SURVIVORS.

SIR,—The *Mining Journal* has repeatedly contained suggestions for the prevention of accidents in coal mines, and for the protection and relief of the colliers and their families; but, notwithstanding all that the State has done, and all that science can suggest, accidents upon a large and small scale will continue to happen. The returns of the Inspectors of Coal Mines for the past seven years show that there has been an annual average loss of 1145 lives by accidents at mines, and if we add to these an estimated number of 2000 others partially or permanently disabled by maiming and mutilations, and allowing an average of four persons dependent upon the labours of those killed and injured, we have something like 12,000 persons reduced to a state of distress and privation every year.

Enquiries which have been made indicate that there is no *permanent fund* in existence for the relief of the families of those killed, and of those entirely or partially disabled by accident. The only funds which exist for the benefit of such persons arise from the contributions of the employers and miners themselves to a sick and burial club, and the aid afforded by public subscriptions for the benefit of the survivors of great catastrophes, such as the Hartley and Oaks Collieries. Under these circumstances it is proposed, by some persons deeply interested in ameliorating the distress caused to those who have lost husbands and relations upon whom they have been dependent, to create a "Miners' Benevolent Fund," out of which relief should be granted to the survivor or survivors of those killed, and to the families of those who are entirely or partially disabled by accidents at mines.

The public, who have always handsomely come forward upon the occurrence of some great colliery accidents, will doubtless readily support a scheme which will have for its object the relieving it, to a great extent, from these occasional appeals, which are the result of great explosions in mines; and assurances have been given that the establishment of such a society, *devoted exclusively to the purposes stated*, will have the support of eminent and influential persons. But if the general public are to be asked to contribute largely for such an object, the colliery proprietors and the colliers themselves should also subscribe to the permanent fund, independent of what they are now doing for their sick and burial fund. I shall be glad to learn the opinion of any persons disposed to make known, through the Journal, their views upon this subject, and any information bearing upon what is now done for relief in the various colliery districts will be especially acceptable.—*Northumberland-street, Charing-cross.* J. BATE.

COPPER-HEADED BARS FOR TAMPING.

SIR,—Cornwall has again been subject to accidents which must cause most uncomfortable feelings on the part of those engaged in the tamping of holes. This very subject was brought before the public some time ago by Mr. Wm. Edwards, the manager of the Hemerdon Mines, who sets an example which ought to be followed by all managers; he has posted on all doors, &c., of his mines the following notice:—Anyone who may be known to tamp a hole with an iron bar will be immediately dismissed." If this were followed out at every mine, and none but the copper-headed bar used, accidents would be as scarce as they are frequent now. GEOLOGIST.

EAST WHEAL GRENVILLE, AND THE WONDERFUL DISCOVERIES.

SIR,—Where is the rich lode? What has become of the wonderful "telegraphed improvements?" and the rich ore, estimated to be worth 25*l.* per ton? Has the latter been sold at a private ticketing, convened expressly for the purpose of buying such "rich ore?" or has it been stolen? or has it been retained on the mine by the agents (and kept for the purpose of being exhibited to the fortunate shareholders who are on 12 days in the year, or on one day per month, permitted to inspect their property), along with a large quantity of other ores, which, according to the reports published in the Journal for the last three months, should be now on the floors, seeing there is but 103 tons sold? But this can hardly be the case. In whatever mines that I have been connected with all ores, &c., are sold against the meetings, and more especially when a call is required. If, then, the last sale proves the value of this rich caunter, and which I think has been compared with West Basset caunter lode, what are we to expect for the next three months? According to my calculations a cost must even now be incurred of from 450*l.* to 500*l.* per month, and we see the returns: let me, then, ask what amount of rich discoveries and improvements will be required to enable this mine to meet its cost? I have in vain examined the Journal for a report of the meeting held on Nov. 19; is it well that the public should be only allowed a sight of the bright side of the picture?

I have noticed that we have often been warned of attacks about to be made on this mine, but I have examined the Journal in vain for anything of the kind. I am compietely at a loss to understand these things, but perhaps some of your numerous readers, or someone connected with the mine, will throw a little light on the subject, and explain these matters, which are so puzzling to many, without the usual amount of stuff and nonsense respecting "bears," and a wish to depreciate the mine in the market, which an endeavour to elicit the truth usually calls forth. A LOOKER-ON.

OKEL TOR MINING COMPANY.

SIR,—I am glad to perceive that some movement is being made on the subject of the length of time allowed to elapse between the holding of the general meetings of the shareholders in this mine. In many other mines in which I am interested I regularly receive bi-monthly or quarterly reports, with statement of accounts, and I cannot see why this usual course should not be adopted at Okel Tor. On reference to the last report of a meeting (March, 1868), I find that prior to that date no meeting had been held since August, 1866, and now nearly nine months intervene. At the meeting in March last the debts were computed at something over 2700*l.*, against which there appeared a sale of ore about 950*l.* These debts it was supposed would be liquidated on the realisation of the October sale. This sale has taken place, and, I am credibly informed, there is owing to the merchants at the present time from 1400*l.* to 1600*l.* I hope that the shareholders will at once arouse themselves from their apathy, and insist on a general meeting being held as soon as practicable; and, in order to free the mine from debt and relieve us from the heavy liability, to make a call sufficient to place the mine in a satisfactory pecuniary position.

A SHAREHOLDER.

THE RESOURCES OF COLORADO—No. IV.

SIR,—In looking over our great country, with her boundless wealth and natural advantages, her past, present, and future growth, we cannot fail to be impressed with the importance of the vast extent of country lying west of the Missouri River. Until within a very few years this whole region was unknown. Early travellers and explorers led people to believe there were no lands suitable for cultivation from the Platte Valley to the Humboldt River, in Nevada. The first settlers in the "Pike's Peak" country were surprised they were not buried 10 or 12 ft. under the snow the first winter; and still more surprised the next summer to find healthy heads of wheat, the seeds of which had been accidentally dropped in a garden at Denver. It is here the early map makers located the great American desert. This popular error still exists, and it is painful to suggest to the thick-skulled gentry—who in the Eastern States still project maps on cheap paper, with lamp-black and pokeberry juice, for the edification of the rising generation—that they must get up another geography, and locate another bald spot upon their charts for that place of fabled desolation; for if they had them out there they might knock out what little brains they have with a Colorado onion, bury them in one of our squashes, give them head-stones from beets, and slab them over with slices of one turnip, the product of the desert of their imagination. In 1844, William Gilpin (now Governor of the territory), then just returning from explorations in the Rocky Mountains, declared that this region was of the greatest value for pastural and agricultural purposes, and that its mines would astonish the world; but he was pronounced insane, because he attacked that map with the big spot on it, marked "the great American desert." His description of the grasses in the plains, the character of the soil in the valleys, and notes on the formation and geology of the mountains, carried conviction to any being possessed of reason, and the faculty of applying it, from knowledge of other lands. And yet he who predicted that we should be here to-day—our plains smiling with cultivation, our hills covered with flocks and herds, our mines yielding their countless quantities of richest gold and silver ores, and the mountains echoing the blasts of our stupendous Union Pacific Railroad engines—was pronounced mad. Sir, madmen such as Franklin, Stephenson, Watt, Fulton, and old Gilpin, have made your and our country.

But to return to our mineral advantages, I would offer a succinct statement of their location. The several countries of the territory contain at this time a population exceeding 100,000, which a year before the war was unsettled. Gold being the primary cause of the emigration, we will commence with Gilpin County, where it was first discovered. It is situated nearly in the centre of the territory, North Clear Creek running through it, and has the richest gold mines of the country within it. Good pine timber is abundant, but in the vicinity of the mines large quantities have been consumed for fuel, lumbering, and timbering. It is well watered by the South Boulder and North Clear Creeks, with their tributaries, furnishing a large amount of power available for mining purposes. A "consolidated ditch" has been constructed at a great expense, taking its water from the head of Fall River, and winds ten miles along the sides of the mountains into the section where most of the developed mines are situated. It is proposed to cover over this ditch to make it frost-proof, and thus furnish 150 mills with a water-power each equal to 40 horses, and by laying a track on the covered ditch it can be used as a railway for the transportation of timber to the mines. Three cities have within five years grown up in this country—Nevada, Central, and Black Hawk—which at this date have become one, and extend in continuous line for three miles, having 10,000 inhabitants. The rock in this country is almost exclusively granite, gneiss, and mica slate, and geologically belongs to the "Azoic Age." The metalliferous veins belong to one system, having a strike of north-east and south-west, with a slight dip to north-west; and since their formation the rock has been subject to so little subterranean disturbance that they are nearly vertical, and not dislocated by faults. The greater number are fissure veins, with good walls, and can be traced on the surface for long distances, and will be found deep and permanent. Hitherto there has been no openings to a greater depth than 500 ft., and the ore has invariably been found to be richer at that depth.

The gold is generally found associated with iron, copper, lead, zinc, silver, and in some veins with antimony, arsenic, and manganese. From 10 to 50 feet from the surface the ores are oxydised—below this they all contain sulphur. The gold on the surface can nearly all be extracted by amalgamation in the stamp-mill. The sulphuret ores yield only from 40 to 50 per cent. On these ores the application of high heat in a short time produces the same changes that nature effects in ages at a low temperature. The ore being in quartz or felspar, can be concentrated with great facility; and after it is crushed and amalgamated the cost ought and need not exceed 75 cents per ton; while the whole cost of crushing, amalgamating, concentrating, with interest of money invested, wear and tear, and superintendence, need not be more than $5 per ton. The five principal lodes in this county aggregate 20,000 ft. of shafts; levels, inclines, and tunnels as much more. We are paying now from $6 to $8 a cord for wood and mine timber, but when the railroad connections are opened, which will be in a very few months, these prices will diminish largely, and wood as fuel give way to coal. As to climate, in this, as with all other portions of the territory at such an elevation, it is the finest in the world; indeed, it is said that to "start a graveyard" a rope had to be used, "and the oldest citizen hung."

R. H. L.

TIN MINING IN CORWALL.

"THE GREAT WESTERN MINING COMPANY."

The important and permanent advantages to be derived in point of economy and facility of development by the amalgamation of a well-selected group of mines as one enterprise are too obvious to need recapitulation; but, perhaps, the most satisfactory, because the most practical, illustration of the fact will be brought about by the contemplated operations of the Great Western Mining Company, an undertaking, as stated in last week's Journal, formed for the purpose of extending the scale of development hitherto pursued at several proved mines in the western part of Cornwall. At the time these various properties were worked as separate concerns each presented most encouraging prospects, while, at least in one instance, considerable profits were realised; and, as long since as 1865, the then Chairman of the different companies, pointed out the great desirability of consolidating these various mines; in fact, according to the *Mining Journal* of Oct. 8, 1865, the Chairman then stated that if ever the time should come when the whole of the Grylls Mines were worked by one company it would most certainly prove a large and most remunerative undertaking; and it is not too much to say that had the value of tin been anything like the current rates—the price now being 60*l.* to 65*l.* per ton, instead of, as then, 40*l.* to 45*l.*—the present company would never have been placed in a position to realise the advantages that now appear likely to accrue.

Among the various practical authorities who have favourably reported upon the property are—Capt. Stephen Harris, manager of Great Vor, Capt. Quentrall, manager of East Lovell and Trumpet Consols, and Capt. S. Reed, manager of West Great Work Mine. The manager of Great Wheal Vor, after describing the value and extent of the mines, and the prospects of the different points of operation, concludes by stating that the eastern part of the mine is opening up in a very promising manner, and he adds—"I believe there is nothing wanted but a little capital for additional plant, and to assist in the arrangements of machinery for more extended operations, to bring the mine into a profitable state of working." The manager of Trumpet Consols says—"The mines contain numerous lodes, which have yielded immense quantities of tin from a partial development, and, if the operations are judiciously conducted, I think there is a good chance of success." He adds that "the mines are amply provided with stamping-power, pitwork, and other materials for a vigorous development." The manager of West Great Work Mine, referring to the additional machinery necessary to ensure an extensive and effective development of the mines, suggests that an engine should be erected at a point where the junction of the lodes will be found, a spot suitable for commanding the full extent of the extensive mines. Capt. Reed adds that "having inspected these mines upon previous occasions I have some knowledge of their worth, and now feel more than ever satisfied that with a comparatively small outlay they will soon become not only self-supporting, but very valuable as a sound, dividend-paying property." The managers of the mines, who, it may be mentioned, have been connected with them for many years, state that they "have no hesitation in saying that when the mines are laid open to a greater extent they will again be in the Dividend List, and, as the ground is easy, this can be accomplished in a comparatively short period."

Some idea may be formed as to the extent of the property secured by the Great Western Company, when it is stated that it comprises nearly the whole of the mines formerly worked under the names of Wheal Grylls, East Wheal Grylls, and St. Aubyn and Grylls (or Great Wheal Grylls), and the opinion of those interested at the time may fairly be judged by the circumstance that they commanded an aggregate market value of something like 75,000*l.* to 80,000*l.* Considering the enlarged scale of operations contemplated, and the progressive improvement in the price of tin, it would seem to be a reasonable assumption that an equal market value will be attained at no distant date. When Wheal Grylls was worked as a separate company it returned to its shareholders in the shape of dividends something like 7*l.* upon each share, with 3*l.* 4*s.* paid. This, be it remembered, was realised when tin was of considerably less commercial value than at the present time, and irrespective of the mine providing its capital out of its revenue—in other words, supplying by its returns the means wherewith to provide itself with an effective and extensive plant. But as to the producing capabilities of this one mine alone, which now forms but a portion of the company's property, it would be difficult to adduce a more material fact than that it has at different periods returned mineral of the value of not less than a quarter of million of money, and it is computed that, by the operations proposed, a profit of between 600*l.* and 700*l.* per month will be realised. It is stated that some of the most wealthy and influential capitalists in Cornwall have subscribed for a large interest.

The terms upon which the company have acquired the amalgamated properties are unquestionably exceptionally favourable, inasmuch as the late proprietor has parted with the entirety for 6000*l.*, although the machinery, dressing-floors, surface works, &c., are estimated to be worth from 15,000*l.* to 20,000*l.*, especially as the whole, comprising four steam-engines and an extensive plant, is in an effective working condition. The late proprietor has, moreover, practically shown his opinion as to the future of the enterprise by entering his own name upon the cost-book for 500 shares, upon which he pays 2*l.* per share.

EXPORTS OF RAILWAY IRON.—The quantity of railway iron exported from the United Kingdom in October was 63,695 tons, as compared with 54,799 tons in October 1867, and 41,493 tons in October, 1866. The figures for October will be seen to exhibit a sensible progress; but, notwithstanding this, the aggregate exports to October 31 only amounted to 509,968 tons, as compared with 513,071 tons in the corresponding ten months of 1867, and 430,141 tons in the corresponding ten months of 1866. The demand for rails appears to have much declined in British India, and it also shows a slight decline in Russia; but there has been a great and progressive increase in the consumption of English railway iron in the United States, to which we sent 228,091 tons to October 31 this year, as compared with 145,166 tons in the corresponding ten months of 1867, and 79,023 tons in the corresponding ten months of 1866. The value of the railway iron exported in October was 512,833*l.*, as compared with 479,401*l.* in October, 1867, and 369,472*l.* in October, 1866; and for the ten months ending October 31, this year, 4,067,653*l.*, as compared with 4,296,179*l.* in the corresponding ten months of 1867, and 3,578,898*l.* in the corresponding ten months of 1866.

FOREIGN MINING AND METALLURGY.

A rather important rumour has prevailed of late in France—viz., that MM. Pereire intend to form a great financial company, which is to communicate all possible activity to the collieries of the Moselle group. The number of blast-furnaces worked with coke in the Franche Comté district is becoming more and more limited, but it is now considered that the production has been brought down to a point at which it will not much exceed the consumption, so that no increase of depression is anticipated. This is, perhaps, rather cold comfort. A meeting of the trade was recently held at Besançon; the orders on hand, and the outlet obtained for the stock, were considered to be sufficient to justify a slight rise, but it was considered prudent to adjourn it until next month.

The extraction of the Sarre Collieries amounted in October to 348,330 tons, of which 325,700 tons were taken off—107,464 tons by railway, 52,600 tons by water, 36,080 tons on trucks, and 59,800 tons for the manufacture of coke. The balance was absorbed in the consumption of the collieries themselves. The La Haye Collieries Company, at Liége, is paying this month a dividend for the exercise 1867-8, or 10*s.* per share. The Ougrée Collieries and Blast-Furnaces Company will pay, Jan. 2, 1869, a dividend of 8*s.* per share for 1867-8. The North of Charlerol Collieries Company will pay, on Jan. 2, 1869, a first dividend for the exercise 1868, or 16*s.* per share. The Luxembourg Mines and Sarrebruck Forges Company will pay, Dec. 31, interest and dividends for the exercise of 1867-8, or 4*l.* per share. The Epinac Collieries and Railway Company is paying this month a dividend of 1*l.* 4*s.* per share, for the exercise 1867-8. The Pontgibaud Mine Company is paying the balance of the dividend for the exercise 1867-8, or 1*l.* per share. The 31st coupon on the shares of the Creusot Works Company is fixed at 1*l.* per share, payable Dec. 15. The Prague Iron Industry Company has declared a dividend of 2*l.* per share for the exercise 1867-8.

During 1867-8 the production of the John Cockerill Company, at Seraing, was not less than that of the previous exercise, but the prices realised for the work done were much less remunerative, a consideration which explains the diminution in the profits realised last year. The total amount represented by the work done in 1867-8 was 456,000*l.*, and the rough profit realised was 65,783*l.*, admitting of a dividend of 1*l.* per share to the shareholders. In 1866-7 the value of the work done was 432,000*l.*, but the rough profit reached a total of 69,205*l.*, admitting of a dividend of 1*l.* 4*s.* per share. The capital of the company was increased last year to the extent of 60,000*l.*, the amount of a mortgage loan at 5½ per cent. per annum. The 1*l.* per share paid to the shareholders for 1867-8 represented a return at the rate of only 2¼ per cent. per annum on the share capital. It appears from the annual report of the Rocheux and Oneux Company that the working of a vein of pyrites owned by the company yielded, in 1867-8, 14,057 tons, showing a falling off of 4108 tons, as compared with 1866-7. The rock pyrites are forwarded to the St. Gobain Company, to which the Rocheux and Oneux has engaged to deliver this part of its production. The company sold, during 1867-8, 6277 tons of calamines, or an increase of 4106 tons upon the preceding year. The production of carbonate of lead was also more important last year; it amounted to 1466 tons of minerals, of an average strength of 56·65 per cent. On the other hand, the company only sold 2826 tons of iron minerals in 1867-8, against 4755 tons in 1866-7. The profit realised in 1867-8 amounted to 12,128*l.*, of which, however, 9761*l.* was absorbed by interest on obligations, redemptions of capital, reserve fund, direction, &c. Of the balance of 2367*l.*, 2040*l.* was applied to a dividend on the shares, at the rate of 3 per cent. per annum, leaving 327*l.* to be carried forward to the credit of 1868-9.

At Havre, Chilian copper in bars has revived, and has acquired some firmness. In four days business was done to the extent of 408 tons, as well of first marks as of good and ordinary marks. Disposeable first-mark copper has easily obtained 71*l.* per ton, Paris conditions; for delivery in the second half of December 71*l.* 6*s.* was obtained, and for delivery at the end of January 71*l.* 8*s.* Good marks have found purchasers at 70*l.* 16*s.* and 71*l.* for disposeable, Paris conditions, while ordinary marks have made 70*l.* 10*s.* to 70*l.* 12*s.* per ton. At Marseilles Toka and Spanish are quoted at 72*l.*, Peruvian and refined Chilian at 78*l.*, rolled red copper for sheathing at 84*l.*, and yellow ditto at 78*l.* per ton. The article has maintained former quotations at Cologne, at Stettin prices have varied slightly according to quality, and at Hamburg the demand has been restricted, and prices have been to some extent nominal. The copper works supported by private industry in the Oural mining district are stated to be declining; the Russian Government has sustained these works by large advances, but this resource is now stated to be exhausted, and some of the works are expected to cease operations next year. The precarious condition of the various undertakings is attributed to the constant fall in copper, which was worth 124*l.* per ton at London in 1867, while it only produced 75*l.* per ton in 1868. Like copper, tin has regained some animation; this is due to the moderate amount of the arrivals announced. Everywhere prices are not only sustained, but they even display an upward tendency, and transactions have acquired a rather remarkable development. At Rotterdam holders of Banca tin have raised their pretensions, and stand out for 60¼ fls., although purchasers have appeared disinclined to concede more than 60 fls.; Billiton has ranged between 58¾ fls. to 59 fls. Various sales have been effected of Banca at Amsterdam at 59¼ fls., but at this price there are few sellers. Billiton is held at 59 fls. The reduction in the stock of Banca in Holland has also made its influence felt on the German markets. It seems almost useless to speak of the French tin markets; at Havre prices have been almost nominal; at Marseilles there have been a few transactions—in Banca at 108*l.*, and in English at 102*l.* per ton. Rather more firmness has been remarked in lead. At Marseilles lead in saumons, first fusion, is quoted at 17*l.* 16*s.*; ditto, second fusion, 17*l.* 6*s.*; lead in shot, 19*l.* 2*s.*; and rolled and in pipes, 20*l.* 12*s.* per ton. At Amsterdam, Stolberg for exportation has given rise to some transactions at 11⅛ fls. At Berlin lead has maintained a satisfactory tone. There has not been quite so much doing in zinc, and prices have become, upon the whole, more feeble of late.

The state of affairs on the Belgian coal basins has not experienced any very material change. The production is as extensive as the amount of labour available will allow; prices are firm, but are, nevertheless, regarded by coal workers as not being sufficiently remunerative; finally, complaints continue to be made of a want of plant on the Belgian railways, which it is said is really highly prejudicial to local coal mining industry. At Liége, the greatest part of the orders received come from the departments of the East of France, where metallurgical industry is in a state of great activity. A contract for rails for Russia was recently offered on the Belgian markets, but the proprietors of the Belgian rolling mills required such high rates that the contract passed from Belgium to England. The exports of rails from Belgium amounted in the first eight months of this year to 50,759 tons, as compared with 73,000 tons in the corresponding period of 1867. The exports of rough pig from Belgium have displayed some activity this year, having amounted to Aug. 31 to 13,000 tons, as compared with 8000 tons in the corresponding eight months of 1867. The demand for Belgian rails in the Zollverein has much increased this year; in September alone the Zollverein absorbed 1100 tons of Belgian rails. The quantity of English pig imported into Belgium in September appears to have been about 8000 tons.

COATING FOR SHIPS' BOTTOMS.—The P. and O. Company's iron transport Indus has just been docked after a voyage with a preparation of copper on trial upon her bottom. She was found to be in a very foul condition, stopping her speed three or four knots. H.M.S. Hercules has also just been examined in dry dock at Portsmouth with a preparation of copper on her bottom, and pronounced to be in a "frightful state," showing that copper mixtures are utterly useless to prevent the adhesion of barnacles, weed, &c. We understand that the Indus is now being scraped, and painted with Peacock and Buchan's composition. There is little doubt that when the ship Hercules is scraped and painted, like the Defence, she will obtain an increased speed of three or four knots, and prove to be the finest and fastest iron-clad afloat.

IMPORTANT TO ENGINEERS AND USERS OF STEAM MACHINERY—EVERY BOILER SHOULD HAVE A FEED PUMP, INDEPENDENT OF THE STEAM-ENGINE.—This is the practice of the leading firms of engineers, who are now using exclusively the Donkey Pump manufactured by ALEXANDER WILSON and Co., Engineers, Vauxhall Ironworks, Nine Elms, London, S.W.

PRICE OF MATERIALS,

As charged at the GREAT WHEAL VOR MINES during the following months:—

Description.	July.	Aug.	Sept.
Coals—common ..... per ton	11s. 6d....	11s. 6d....	11s. 6d
,, best ..... ,,	16 8	16 8	16 8
Iron—common ..... per cwt.	—	—	8 0
,, best ..... ,,	10 0	10 0	10 0
Steel—cast and blister ..... ,,	—	38 0	30s.-45s.
Nails—5 and 6 in. patent .... ,,	17 0	17 0	17 0
Tallow ..... ,,	47 6	47 6	47 6
Candles ..... per dozen	5 4	5 6	5 6
Hilts—shovel ..... ,,	—	2 0	—
Powder ..... per 100 lbs.	33 0	33 0	33 0
Leather—bend ..... per lb.	2 4	2 4	2 4
,, butt ..... ,,	2 0	2 0	2 0
White yarn ..... ,,	0 5½ ..	0 5½ ..	0 5½
Hemp ..... ,,	0 5¼ ..	0 5¼ ..	0 5¼
Timber—Norway ..... per 50 feet	32 9	32 9	32 9
,, pine ..... per foot	1 4	1 4	1 4
,, oak ..... ,,	—	—	3 0
,, elm ..... ,,	—	2 0	—
,, battens ..... ,,	—	0 1¾ ..	—
Rope ..... per cwt.	44 0	44 0	44 0
Stamp heads—longshanks.... ,,	9 0	9 0	9 0
Cartridges ..... per 100	34s-47s	34s-47s	34s-47s
Safety fuse ..... per coil	0 6	0 6	0 6

HOLLOWAY'S OINTMENT AND PILLS—ACUTE RHEUMATISM.—In all severe pains in the joints and muscles, after due fomentation with hot water, the soothing action of this ointment is most remarkable. It seems at once to lessen inflammation, ease pain, reduce the swelling, restore the free circulation, and expel the disease. In these complaints, indeed, Holloway's ointment and pills are infallible specifics. The ointment should be rubbed in as near the part in pain as the patient can bear; it is absorbed, and directly conveyed to the diseased textures, when, acting on nerves, vessels, and guilders, it will arrest disease, and again establish healthy action. The aperient and purifying qualities of the pills have the happiest effect in assisting the ointment.

The Great Western Mining Company,

IN 6000 SHARES—ON THE COST-BOOK SYSTEM.

A Committee of Management will be chosen at the first general meeting of shareholders.

BANKERS—THE ALLIANCE BANK (LIMITED), LONDON.

SECRETARY AND LONDON MANAGER—J. H. MURCHISON, ESQ., 8, AUSTINFRIARS, E.C.

LOCAL MINING MANAGER—CAPT. EDWARD ROGERS.

SOLICITOR—TUFNELL SOUTHGATE, ESQ., 7, KING'S BENCH WALK, TEMPLE, LONDON, E.C.

PARTICULARS.

This company is formed for the purpose of acquiring leases and agreements necessary for working the Great Western Mines, situate about 3 miles from Marazion, Cornwall, and for the purchase of all the valuable and extensive plant, steam-engines, machinery and materials, dressing houses, surface works, and erections, &c., with a view of continuing the explorations, and for the development of the mineral resources of the property with the utmost rapidity and efficiency, and on a more extensive scale.

These extensive and valuable tin mines are situated in one of the best and most productive tin mining districts in Cornwall, being a little to the south-west of the Tregoning and Godolphin granite range of hills, around which are the justly celebrated Old Vor, and the present Great Wheal Vor, Great Work, and other old and extensive mines, which have yielded millions sterling in value of tin and copper ores, and given enormous profits therefrom. Great Wheal Vor may be considered at present one of the richest and most profitable tin mines in Cornwall, for it is making an annual profit of about £9000 to £10,000, while the tin ground further laid open is probably worth about £70,000, independent of daily discoveries. The shares in this mine some years ago were selling for about £4 to £5, and in about two years rose to £45, £46, or £270,000 for the mine, it being divided into 5908 shares. The total profits divided in the last few years amount to from £75,000 to £76,000.

The grants of the Great Western Mines will comprise nearly the whole of the mines formerly worked under the names of Wheal Grylls, East Wheal Grylls, and St. Aubyn and Grylls, or Great Wheal Grylls, all contiguous to each other, and containing the same run of east and west lodes, besides the various north and south lodes yet unexplored. They embrace numerous east and west lodes or veins, three or four only of which have been partially explored, at as yet a comparatively shallow depth, resulting in splendid discoveries and considerable returns and profits. But for the depression in the price of tin in 1866, and the necessity for more powerful pumping machinery in that part of the mine, where such excellent discoveries of tin had been made, for something like 600 yards in length, these mines would no doubt have been yielding large profits.

The agents of Wheal Grylls in their Report of July 25, 1866, stated, that "in order further to develope the mine there must be a larger pumping-engine erected at the pressure shaft, which would drain this mine and East Wheal Grylls at the same time, and judging from the appearance of the lode gone down in the bottom of the 30 and 40 for 75 fathoms in length, we would say there is no doubt if there was an advance of about 15*l.* per ton in the price of tin this mine could be worked at a good profit, by erecting suitable machinery so as to be enabled to put the mine in proper working order. In conclusion, we would say that during our management there has been 764 tons 19 cwts. 1 qr. of black tin raised and sold, amounting to 46,003*l.* 9s. 11d.; the highest price we obtained for tin was from 75*l.* to 76*l.* per ton, whilst the average price as before stated is now only 41*l.* per ton, thereby showing a difference of 34*l.* to 35*l.* per ton. Had the price of tin kept up our returns would have been greatly augmented." And notwithstanding that the loss on the last month's working of that company was only about 130*l.*, the shareholders in consequence of the general depressed state of Cornish mining, arising from the low price of metals, and the state of the money market—the price of tin ore being then only 41*l.* per ton—resolved to discontinue the working of the mines, and to sell the machinery, materials, &c. Since that period the operations have been carried on by the present proprietor, but on a comparatively small scale; notwithstanding this, 164 tons 9 cwt. 3 qrs. 20 lbs. of black tin have been sold, realising 8386*l.* 15s.; the last two months' sales have realised £1033 11s. 9d., which will about pay the two months' costs.

It will be observed, as the agents stated in their report of 25th July, 1866, that if there was an advance of about £15 in the price of tin, the mine would be worked at a good profit by erecting suitable machinery. The price of tin ores which was then about £41 per ton, is now at £57 to £58, thus shewing the advance already of about £16 to £17 per ton, and it is believed that a further very considerable rise in price will shortly take place.

When the mines were disposed of, in 1866, Banca tin was selling at £77 per ton, while the present price is £103, being a rise of £26; Straits tin was then at £74, and is now £100, being a rise of £26; Cornish tin was then at £85, and is now at £103, being a rise of £18.

To show the value of these properties, and the estimation in which they were once held by the public, it may be as well to state that Wheal Grylls, in 1024 shares, with about £3 4s. paid per share, returned in dividends to the shareholders about £7000, being at the rate of about £7 per share. And, in addition to this profit, there was between £5000 and £6000 (equal to £5 or £6 per share more) spent in laying out dressing-floors, pitwork, and other necessaries for properly developing the mine. The shares rose gradually from £3 up to £36 and £37, or to £36,000 and £37,000. East Wheal Grylls, in 2048 shares, with about £3 paid, gradually rose in market value to £14 and £15 per share, or to £28,000 and £30,000; and Great Wheal Grylls, in 3072 shares, with about £2 called up, gradually rose to £5 and £6. Thus these extensive mines realised a market value of about £75,000 to £80,000.

It may also be mentioned that for three months, ending Sept., 1862, Wheal Grylls alone sold 62 tons 19 cwts. 2 qrs. 2 lbs. of black tin, realising £4238 7s. 4d., and leaving a profit of £1097 10s. 10d., besides a sum of £840 2s. 7d. paid out of profits for extra cost in plant, &c. It is believed that from the workings of the late and former companies of adventurers the sales of tin and copper ores must have amounted to between £200,000 and £300,000.

The amalgamation of these mines was frequently contemplated by former adventurers, but from a diversity of separate interests it could not be carried out. By the arrangements now made the water charges will, it is expected, be something like 30 per cent. less than formerly, as it is proposed to erect a large and powerful pumping-engine at a shaft already sunk about 50 fathoms, and in the centre of the present most productive part of the property, and thereby drain the most important operations effectually and economically. To carry this out, and to open up the mines on a larger scale, require further capital, the result of which, it is believed, will in a short time give a return of about 25 to 30 tons of tin per month, yielding a monthly profit of about £600 to £700.

There are several shafts sunk in different parts of the sett, and extensive levels driven, which have cost many thousands of pounds; these are already available for the extended prosecution of the undertaking.

The machinery and surface works of these mines are among the most extensive in Cornwall, and must have cost former adventurers from £15,000 to £20,000. They consist of a 41-in. cylinder pumping engine, with two 11-ton boilers, a 40-in. cylinder pumping engine, a 32-in. double rotative engine, for pumping, drawing, and stamping, with two 10-ton boilers; a 24-inch double rotative engine, for pumping, drawing, and stamping, with one 8-ton boiler; drawing gear, and 62 heads of stamps, a 12-feet bed calciner and large dressing-floors, with buddles, frames, trunks, sheds, flat-rods, pitwork, &c.

A perusal of the accompanying reports will further show that the company will possess an extensive and most valuable run of mines in working condition, only requiring more efficient machinery to produce very satisfactory results.

There has been seldom, if ever, such a favourable opportunity presented to the mining public, where so good a chance of realising large profits can be had for so slight a risk.

The company has been formed on the Cost-book System, and divided in 6000 shares, upon which a call of £2 per share has been made.

The present proprietor, with the view of a more extensive development of the property, has agreed to dispose of all the plant, engines, machinery, materials, pitwork, pumps, dressing houses, surface works, and other erections, for the sum of £6000, and has signed the cost-book of this company for 500 shares, on which he will pay the £2 per share. From a careful calculation gone into, it is believed that about £4000 to £5000 will be ample for the purchase and erection of the requisite machinery, and for the more extended and vigorous development of the mines.

Some wealthy and influential capitalists in the western part of Cornwall, resident not a great distance from the mines, have taken an interest in the company, and signed the cost-book for the same. A large number of shares has already been taken, and for the remainder of the shares applications will be received. The sum of £1 per share to be paid on application, and the remaining £1 per share on allotment. Priority will, of course, be given to the earliest applicants.

A committee consisting of three shareholders has been appointed for the purpose of carrying on the affairs of the company for the present; and, in accordance with the rules and regulations for the government of the company, a committee of management, of not more than five shareholders, will be elected at the first general meeting.

An inspection of the plans and sections of the various lodes already operated on will show the magnitude of the tin ground which has been discovered.

Applications for shares, in the form below, accompanied with the deposit, may be made to the Alliance Bank, London, Liverpool, and Manchester; or to J. H. MURCHISON, Esq., the secretary and London manager.

REPORTS ON THE MINES.

Great Western Mines, Nov. 26.—Fisher's Lode: At Annie's engine-shaft the bottom level is 40 fathoms below adit, or 80 fathoms from surface. This level is communicated to the Pressure shaft, and also extended east and intersected the elvan course. The stope in the back of this level is worth £30 per fathom. In the bottom of this level for a considerable distance the lode is worth from £30 to £40 per fathom. The end is driving at £4 10s. per fathom. The 30 fm. level is driven east into the elvan course, and passed through a rich lode for full 100 fathoms in length. The 20 fm. level is extended east of the Pressure shaft 80 fathoms; at this point we commenced cross-cutting north towards the south lode. This cross-cut will intersect this lode about 30 fathoms west of Thomas's shaft, where there is a rich lode gone down in the bottom of the 10 fathom level for 30 or 35 fms. in length, worth from £15 to £20 per fathom. The back of this level from the shaft to the elvan course, a distance of 20 fathoms, has been taken away at a good profit; at this level west also the lode has been remunerative for a very long distance. The 10 fathom level is driven east of Thomas's shaft 41 fathoms, and a cross-cut driven north and cut the middle lode, and then extended east on this lode to Curtis's shaft.—South Lode: The adit has been driven west of White's shaft 24 fathoms. The lode in the back for nearly all this distance has been taken away at a profit (from the adit to surface). The bottom of the level is also sunk about 5 fathoms and the lode taken away, which was as deep as the former company could get for water, having no pumping machinery.—Middle Lode: Curtis's flat-rod shaft is sunk 20 fathoms below adit and a level driven on the course of the lode 50 fathoms, which has enabled us to set five pitches in the back of the level, at a tribute varying from 6s. 8d. to 15s. in £1. In the end east the lode is 4 feet wide, worth £8 per fathom, and passing through profitable ground; in the end west the lode is 3 feet wide, worth £18 per fathom, driving on tribute at 10s. in £1. In bottom of the 10 fathom level west there is a winze gone down 9 fathoms; the lode is 3 ft. wide, and sunk through profitable ground for the whole depth. At the 7 fathom level, driving east, the lode is 18 in. wide, producing tinstone that will just pay for stamping. An important feature in this part of the mine is, that at 17 fms. from surface the length of profitable ground was only 10 fathoms, but as we proceed in depth it is lengthening both east and west, so that at the 7 fathom level below adit it is 50 fathoms in length, with every appearance of its continuing thus favourable to the present bottom level (the 20).—Caunter Lode: At the adit level driving east of Curtis's shaft, the lode is producing good stones of tin, the back of which will be taken away by tributers at a profit. The winze in bottom of the 17 fathom level (from surface) is also passing through tribute ground. We expect to communicate this winze to the adit in a few days, when we shall commence driving the 17 east; this we consider an important point, as a few fathoms will intersect Stevens's lode, when most likely we shall meet with a rich bunch of tin. We would remark that in order to prosecute the mine with vigour there ought to be a large pumping-engine erected at Thomas's shaft, near which is the junction of Fisher's lode and the south lode, where at all the levels above it has been made a long run of rich profitable ground, and the same results may reasonably be expected at deeper levels. Another point of great importance is, that if the middle lode keeps the same underlie as it has up to the present time, it will intersect those other two lodes, at or about 70 fms. below the adit, a depth that should be arrived at as quickly as possible, in order to see the effect of those three productive lodes coming in contact with each other. In conclusion, we have no hesitation in saying that when the mine is laid open to a greater extent, by sinking the shafts, and driving levels under the present workings, it will again be in the Dividend List, and being in easy ground this can be accomplished in a comparatively short space of time.

EDWARD ROGERS, EDMUND ROGERS.

Great Western Mines, Nov. 26.—I have this day inspected these mines, and beg to hand my report thereon:—The most productive lodes at present being wrought on are Fisher's and the middle lodes.—Fisher's Lode: Pressure shaft is sunk to the 40 below adit, or 80 fms. from surface, and driven east 10 fms. through good tin ground. The 30 is driven east of this shaft 10 fms. to the elvan course; in the bottom of this level there is a good run of tin ground, worth £25 per fm. or upwards, which is being worked by four men, at 5s. in £1. The upper levels have yielded large quantities of tin. Thomas's shaft on this lode (115 fms. east of Pressure shaft) is sunk to the 10, where there is good tin ground both east and west; this is a very promising part of the mine, which I think could be most economically developed by driving the 30 and 40 fm. levels, east of Pressure shaft, under this ground; this would develope it 30 fms. deeper than at present without much increase of water.—Middle Lode: Curtis's shaft is sunk to the 20, and they have driven through 50 fms. of profitable ground, worth in places £15 per fm. or upwards. There is some good tribute ground being worked in the upper levels, which has lengthened and improved in depth. There are now about 70 men employed underground, raising about 9 tons of tin per month, which will about pay the cost. The returns would be considerably increased by employing a few more men on tutwork. These mines contain numerous lodes, which have yielded immense quantities of tin from a partial development, and if the operations are judiciously conducted, I think there is a good chance of success. I may add that the mines are amply provided with stamping-power, pitwork, and other materials for vigorously prosecuting the same. RICHARD QUENTRALL.

Great Wheal Vor United Mines, near Helston, Dec. 2.—I have this day inspected the "Great Western Mines," and beg to hand the following as my report, confining my attention to Curtis's and Thomas's portions of the mine. Curtis's flat-rod shaft is sunk 20 fms. below adit, on middle lode, which has been opened on about 25 fms. east and 25 fms. west of the shaft, at this level; the lode in the present end 4 ft. wide, and from my own assay is worth full £15 per fm. In the 20, west of shaft, the lode is 3 ft. wide, worth from £15 to £20 per fm. There are five pitches working in the back of this level, at a tribute varying from 4s. 6d. to 15s. in £1. The pitches are just commenced with, and the ground is standing whole to the level above. The 10 fm. level is extended both east and west of shaft a great distance, and the backs are pretty well exhausted; still, however, there are a few pitches working at a high tribute. I think one of the principal features in this part of the mine is the extension of the 20 fathom level east, as there is a long extent of ground in that direction, where junctions and intersections of lodes will be met with, and I have no doubt but that good and profitable results will be obtained. I would also recommend the sinking of Curtis's shaft below the 20, as it is evident that at this level the tin ground has greatly lengthened, and also by sinking the shaft about 30 fms. deeper, with its present underlie, it will form a junction with Fisher's lode, and as both lodes are productive as deep as yet seen, there is great encouragement for a vigorous development. Thomas's shaft is sunk to the 10 below adit, and the different levels extended a considerable distance both east and west, the greater part of the backs having been taken away, and sinks put down in the bottom level as far as could be remuneratively worked on account of water. The eastern part of the mine is opening up very promising, and I believe there is nothing wanted but a little capital for additional plant, and to assist in the arrangement of machinery for more extended operations, to bring the mine into a profitable state of working.

STEPHEN HARRIS.

Great Western Mines, Nov. 25.—I have this day carefully inspected these mines and beg to hand the following as my report of the same:—The 40 or bottom level has been extended from the engine-shaft on Fisher's lode, east to the main elvan, which is a considerable distance. The back of the level is being worked on tribute, where the lode varies in value, and is worth £35 to £40 per fm. The same value, £30 to £40 per fm., may be said of the lode in bottom of the level, where it is 9 ft. wide, and of a very promising appearance. The 30 also has passed through a good lode for 100 fms. in length, the backs of which are mostly taken away. The 20 has been driven from Pressure shaft about 80 fms.; at this point a cross-cut is being put out to intersect the south lode, and, judging from its bearing, is expected to be cut in 3 or 4 fms. further driving. I entertain a high opinion of this lode, as, judging from the extensive old workings seen at shallow levels, former workers must have raised large quantities of tin from it, and it can now be cheaply explored at each level below. Curtis's shaft, which has been sunk on the course of the middle lode, is now to the 20, where the water is being drained by horizontal rods from the stamping-engine. In this level (20) a fine lode has been opened up for nearly 50 fms. in length; in the west end it is 3½ ft. wide, worth £15 to £18 per fm.; the east end is worth £6 per fm. In the 10 fm. level there is a profitable lode opened up for a considerable distance, and a winze, which will be communicated in a few days, will lay open a large section of valuable tin ground. Judging from the length of tin ground as seen in the shallow levels, I am pleased in being able to state (and a very important feature it is) that the tin ground lengthens from 10 to 15 fms. at the 17, to about 50 fms. at the 20, as before described, and still continues productive. On what is called the caunter lode a good deal of tin has been raised, and on this I would recommend a level being driven to intersect Stevens's and other side lodes, as seen in the Old Great Grylls sett, a very desirable speculation. There are a great number of tributers employed, and good returns are now being made. To work these mines effectually, I think an engine should be erected on Thomas's shaft, where the junction of several lodes would be found—a spot suitable for commanding the full extent of these extensive mines. Having inspected these mines on previous occasions I have some knowledge of their worth, and now feel more than ever satisfied that, with a comparatively small outlay, they will soon become not only self-supporting, but very valuable as a sound dividend property.

SAMUEL J. REED.

THE GREAT WESTERN MINING COMPANY.

In 6000 Shares—On the Cost-book System.

FORM OF APPLICATION FOR SHARES.

To the Committee of the Great Western Mining Company.

GENTLEMEN,—Having paid to the bankers of the company the sum of £ , being a deposit of £1 per share, on shares in the above company, I hereby request that you will allot me that number, and I agree to accept such shares (or any less number allotted to me), and to pay the remaining £1 per share on allotment; and I hereby authorise you to place my name on the cost-book and register of shareholders of the company, for the shares so alloted to me.

Usual signature.....
Name in full .....
Date ..... Residence .....

N.B.—Priority will be given to the earliest applicants for shares.

BANKERS' RECEIPT.

THE GREAT WESTERN MINING COMPANY.

Received this day of , 186 , from , on account of the Committee of the Great Western Mining Company, the sum of pounds, being a deposit of £1 per share on application for shares in the Great Western Mining Company.

£ : : For the Alliance Bank (Limited).

FOUNDED A.D. 1844.

EMPOWERED by Special ACT of PARLIAMENT, 25 and 26 Vic., cap. 74.

THE GREAT BRITAIN MUTUAL LIFE ASSURANCE SOCIETY,

With which is incorporated the

NATIONAL UNION LIFE ASSURANCE COMPANY.

CHIEF OFFICES,—

101, CHEAPSIDE, AND 335, STRAND, LONDON.

SPECIAL ADVANTAGES TO ASSURERS.

The entire profits divided amongst the holders of participating polices.

The profits applied—first, in extinguishing the premiums at a given date, and afterwards in making the policy payable during life; this important advantage being secured without the payment of any additional premium.

No claim can be litigated or disputed, except with the consent of the members present at a general meeting, to be specially convened for the occasion.

According to the half-credit system, one-half of the first five annual premiums may remain as a charge upon the policy, the half premiums for which credit is given being (on participating policies) gradually liquidated out of the profits.

ANDREW FRANCIS, Secretary.

Meetings of Mining Companies.

WHEAL TRELAWNY MINING COMPANY.

A quarterly general meeting of shareholders was held at the offices of the company, Bishopsgate-street, on Thursday,

Mr. PETER WATSON in the chair.

Mr. W. J. LAVINGTON (the secretary) read the notice convening the meeting, and the minutes of the last were approved.

A statement of accounts was submitted, which showed a debit balance of 424*l.* 8s. 11d. The loss upon the three months' operations amounting to 511*l.* 7s. 7d.

The report of the agents was read, as follows:—

Dec. 15.—The 210 fathom level, north of Smith's shaft, is extended to within 15 fathoms of Chippendale's shaft. This level has opened up some profitable ore ground since we left the slide, which has been 14 fathoms, and which has been worth 7*l.* per fathom. The present end is of the same value. We are in the way of sinking Chippendale's shaft, and hope to get it down in time to communicate with the end. In the 210 south we have cut through the whole of the lode, which is about 3 feet wide, and spotted throughout with ore. This end is now within 17 fathoms of a winze sinking below the 196 for ventilation, and when holed we shall be enabled to work a portion of the back of this level on tribute. In the 196, north of Chippendale's shaft, we have driven 8 fathoms north of the slide, and for this distance the lode has been worth fully 20*l.* per fathom, the present end being of the same value. In the 196, south of Smith's shaft, we are putting up a rise to communicate with a stope in the bottom of the level above, and where cut into the lode is worth 15*l.* per fathom. The stope referred to is worth full 20*l.* per fathom. In the 220, north of Trelawny's engine-shaft, we have cut into the lode, which is about 2 feet wide, containing stones of ore, but not rich. In the 210, south of this shaft, we have also cut through the lode in this end, which is presenting a most promising appearance, and worth 6*l.* per fathom. In the 210 north we have not yet reached the main part of the lode; there is, however, a good deal of water coming out of this end, which we hope will quickly drain the winze mentioned in our former reports. Trelawny's engine-shaft is down 4½ fathoms below the 220 fathom level. We have fixed the drawing-lift, &c., and have nine men engaged in sinking, at 20*l.* per fm., and no time will be lost in getting this shaft down, so as to make a 230 fm. level. At Smith's engine-shaft we have a quantity of extra water to contend with, owing to the late unusual heavy rain, which has increased our engine from 2½ to 6 strokes per minute. It would be useless to commence to sink at present, but as soon as the water has diminished we shall immediately put a full pare of men to work. You will see from the foregoing remarks that our prospects have very much improved since our last meeting, more especially in the north part of the mine, where we have broken from 60*l.* to 70*l.* worth of ore in the 196 from 3 fathoms of ground. We have sold during the past quarter 154 tons (computed) of No. 1 silver-lead ore, and 58 tons of No. 2, which have realised, with a small parcel of mundic, 4179*l.*, and are now in the way of dressing, and which will be sampled at the usual time 75 tons of No. 1, and should our pitches continue to look as well as they are at present, we hope to sample for the ensuing quarter not less a quantity than we have in the past one—about 212 tons.—W. JOHNS, T. GRENFELL, JOHN PRYOR.

The CHAIRMAN, having moved that the report and accounts be received and passed, drew attention to the fact that the position and prospects of the mine were of a more satisfactory character than for some time past. Everything had been charged as closely as possible, and the loss, notwithstanding the extent of the development that was being carried out, had been only about 500*l.*, whilst in the corresponding period immediately preceding the loss was 1000*l.* He might mention that, in addition to the sinking of Trelawny's, it was in contemplation to renew the sinking of Smith's shaft; and there could be no doubt that when another level shall have been opened up Trelawny would be in a position, in every respect, far more satisfactory than it had been for years past.

Mr. LANYON (late of the Kennel Gunpowder Company) said that the feeling in the neighbourhood of the mine was that it was not only in a better position, but that its prospects were of an encouraging character.——The CHAIRMAN thought it might be satisfactory if he were to ask the secretary, in the presence of the shareholders, whether every item had been charged up close?——The SECRETARY said that everything was charged up to the end of October.

Mr. FITZGERALD asked when Trelawny's shaft would have been sunk deep enough for the commencement of another level?——The SECRETARY hoped that another level would have been commenced by the time of the next general meeting.

The report was ordered to be entered on the minutes, and the accounts were passed and allowed. A call of 10s. per share was made, and the committee of management were re-elected, with thanks for past services.

The CHAIRMAN, in acknowledging the vote on behalf of the committee, stated that while they were doing everything in their power to promote the best interests of the enterprise, he regretted to state that they had not yet succeeded in inducing the whole of the lords to remit the dues during the time the heavy expenditure was going on in connection with opening the mine upon an extended scale.——A SHAREHOLDER regretted to hear that the committee had not succeeded in their efforts to obtain a suspension of the dues; and, as far as he was concerned, he could not help expressing an opinion, which was to the effect that the conduct of the lords, or such of them as had not acceded to the wishes of the shareholders, was, considering the circumstances of the case, most illiberal.

Mr. LANYON said that he could not allow the present meeting to separate without according to their worthy Chairman their best thanks for his presiding upon this occasion; and, as a Cornishman, he (Mr. Lanyon) could not refrain from taking advantage of the present opportunity to state their Chairman had set the whole of Cornwall a noble example, in having during the last two or three years, throughout a period of the severest depression, upon his own responsibility, continued the operations of an important and extensive group of mines, and thereby afforded employment to between 150 and 200 people, whose families would, no doubt, have otherwise become chargeable to the parish. While, therefore, their Chairman deserved general commendation for his undaunted "pluck," he also merited the unequivocal thanks of the whole of Cornwall. (Hear.) He then moved that the best thanks of the meeting be accorded to the Chairman, for his presiding upon this occasion.

The motion, being duly seconded, was put and carried unanimously.

The CHAIRMAN having appropriately acknowledged the vote, the meeting separated.

EAST WHEAL ROSE CONSOLIDATED SILVER-LEAD MINING COMPANY.

The annual general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Saturday, for the purpose of receiving the directors' report, balance-sheet, and report of the captain of the mine, and to consider the position of the company generally.

Major BOYLE in the chair.

The notice convening the meeting was read.

The report of the directors stated that the favourable opinions originally entertained of this property not having been borne out by the results, the directors think that the time has now arrived when the wishes of the shareholders should be consulted as to the advisability of making any further outlay. The reports of Capt. Nancarrow, of South Chiverton, and Capt. Trevillion, of Herodsfoot, have been obtained; and they are of an unsatisfactory character. The manager of Herodsfoot Mine is considered one of the most judicious lead miners in Cornwall.

The CHAIRMAN, in moving the adoption of the report and balance-sheet, explained that the present was but the ordinary meeting, and, therefore, only preliminary to the one at which the most important business of the day was to be transacted. Under these circumstances, it will probably be advisable to defer entering into the general position and prospects of the mine until the special meeting, when he should endeavour to lay before the shareholders such facts as he thought would enable them to form a correct opinion as to the future course of action with regard to their property.

A SHAREHOLDER asked how much of the arrears of call could be considered as good?——The CHAIRMAN said that already a portion had been paid, but there was a large portion which was irrecoverable, inasmuch as the shares upon which it was due belonged to a gentleman who, unfortunately, was a great sufferer by the late financial panic; and as his estate disclosed very small assets, he did not think they could reckon upon recovering much of that arrear.

Mr. REYNOLDS seconded the motion adopting the report and balance-sheet, which was put and carried unanimously.

An extraordinary general meeting was then held for the purpose of passing a resolution requiring the company to be wound-up.

Major BOYLE in the chair.

The notice convening the meeting was read.

The CHAIRMAN said they had embarked in an enterprise that there was every reason to hope, from the opinions and reports of practical men, whose special avocation it was to form opinions upon such subjects, that their venture at least presented ordinary prospects of success. It would, doubtless, be within the recollection of the shareholders that the specimens of the lode which were forwarded to the head office had upon assay yielded 75½ per cent. of lead and 28 ozs. of silver. Whether those specimens were or were not fairly taken from the *debris* of the lode he was not prepared to say; but at all events, the lode, encouraging as it appeared to be a few months since, had, according to the reports of Capt. Trevillion, of Herodsfoot, and Capt. Nancarrow, of Great South Chiverton, undergone an entire change—a change, he regretted to say, not for the better. Although, like other shareholders, he had lost his money in the venture, yet he could not think even now that they had been wrong in supposing in the commencement of their undertaking that upon development the mine would have yielded satisfactory returns, and the more particularly when they recollected the great things that had been done in the immediate neighbourhood. Notwithstanding the opinions of those authorities whom he had cited, it would, of course, entirely rest with the shareholders to consider whether they would abandon all further operations or continue the explorations. The company was now almost free from debt, but if the shareholders decided to go on, more of the uncalled capital would have to be expended; and if the shareholders so determined, the directors would have the mine continuously developed until the whole of the capital shall have been expended. By the notice convening the meeting, it would be perceived that the directors desired to incur no risk unless with the sanction of the shareholders, for at the first moment of a reverse they called in the best opinions, and as such submitted them to the shareholders, soliciting their decision thereon.

Mr. ROSS said that upon the present occasion he represented some of the largest shareholders, in addition to the interest his firm held in the company. He might, perhaps, be allowed to take the present opportunity to state that one of the principles upon which his firm conducted their mining business was to use every available means to obtain the most reliable information; and when obtained to at once transmit it to their friends, leaving them to form their own opinions upon it. Such had been the course adopted with regard to this company, and as the Chairman had informed them, the information obtained was not of a satisfactory character; but at the same time, if the shareholders so

wished, the development of the mine could be continued in order to see if its general prospects improved. There was no disguising the fact, however, that under existing circumstances the prospects were most discouraging, inasmuch as during the last few fathoms sinking the whole character of "the country" had undergone a complete and unsatisfactory change. Before the shaft had been sunk to its present depth, all the practical agents of the neighbouring mines who saw the property agreed in stating that in all their experience they had never seen such "a country" for the production of lead; but, as he had already informed the meeting, in sinking an entire change had taken place.

The CHAIRMAN thought before the discussion was further proceeded with, the Secretary should read the report from the manager.

The SECRETARY accordingly read the report, as follows:—

Dec. 4.—The adit level is driven south and south-west 60 fms.; and from the appearance of the strata in the last 10 fms. driving it showed signs of a lode being near, and it was deemed advisable to sink a winze, with a view to intersect the lode. In this winze a lode is intersected, and sunk on 5 fms. below the adit level, with an improving appearance in depth. Having no ventilation, and with an eye to economy and a speedy development, a shaft was sunk to intersect the lode at the bottom of the winze, when through ventilation was given, and for several fathoms below this point the lode is very regular; and being embedded in a blue clay-slate, similar to that of the rich mines of the district, there was reason to expect this lode would be productive for silver-lead, but the strata changed from clay-slate to a dark sandstone, after which the lode in sinking proved to be going almost flat, when the sinking was stopped, and a cross-cut driven south through the lode, which is not only poor, but does not show the least appearance of ever becoming productive. A cross-cut is also driven north at this level to prove whether a part of the lode had taken a less underlie after nothing of the lode could be seen at this point. It was then considered that everything below adit was fairly tried, and it was abandoned. At the adit level there is a cross-cut extended south, in which several branches are intersected, one of which had a promising appearance, but opening on it did not give satisfactory evidence to warrant development. Near the north boundary of this sett a shaft was sunk, where it was said lead had been found, but I could not see anything here to justify me in a further trial. After carefully looking through the several points of operation at and below the adit level, and the costeaning at surface for at least 100 fms. north and south, I feel fully justified in recommending the drawing up of the materials, and the abandonment of the sett.—JAMES EVANS.

The CHAIRMAN considered it but right to state that the board had received communications from some shareholders, in which an opinion was expressed in favour of continuing operations, stating that a lode at the very shallow depth of 25 fms. could not be fairly judged of as to its value, and that, seeing the very favourable indications it presented nearer the surface, should be sufficient to encourage them to a more extended development of the property. In accordance, however, with the notice convening the meeting, but more particularly with the view of eliciting the opinions of those present, he would move that the company be wound-up voluntarily.

Mr. SIMMONS, as one of the largest shareholders, seconded the proposition. So far as he was concerned, he was strongly in favour of the abandonment of the mine, and especially after the remarks which had fallen from the Chairman. As to the prospects which the mine had presented, however, he might mention that an old miner working in West Chiverton, and who knew all the mines in the district from their earliest history, informed him some time since that the general characteristics of the ground accorded with that of the properties, which years ago were the most productive in Cornwall; and he (Mr. Simmons) might add that no shareholder in the company could possibly be more disappointed as to the results that attended the development of the mine than this old West Chiverton miner. The mining experience of the district was that as the depth was increased the lodes improved in value, but, unfortunately, in their case it would seem nature "had played a treacherous game." Although he had seconded the resolution, they should not lose sight of the important fact that at West Chiverton, which is the most productive mine in the district, the real value of the lode did not discover itself until a depth of something like 90 fms. had been reached; so that it might be that after all they were abandoning a property which others would, by an enlarged development, prove to be equal to those in the locality.

Mr. BARNES supported the proposition, and considered that the executive deserved the commendation of the shareholders in so readily apprising them that their property did not present the favourable indications that it did when its development was commenced.

After some further discussion, the motion was put and carried unanimously.

The CHAIRMAN said in order to avoid putting the shareholders to any unnecessary expense, he would suggest that Mr. Simmons, one of the largest shareholders, should be solicited to accept the office of liquidator.

Mr. SIMMONS said that he would accept the office upon the condition that some one familiar with the affairs of the company should be appointed to act in concert with him.——It was eventually agreed that Mr. Simmons and Mr. Ross should be the joint liquidators.

A SHAREHOLDER proposed that the best thanks of the shareholders be accorded to the Chairman and directors for the praiseworthy manner in which they had acted in the difficult and unsatisfactory position in which they had been placed.

Mr. REYNOLDS had much pleasuae in seconding the proposition, which was put and carried unanimously.

The CHAIRMAN, on behalf of his colleagues and himself, thanked the shareholders for the vote just passtd. He need hardly say that such a vote was the more gratifying, considering the adverse circumstances under which the executive met their constituents, and all he in return could say was that the board had taken care, as soon as any adverse intelligence was received from the mine, to forthwith submit it to the shareholders; and although the decision they had now arrived at might not, perhaps, be a wise one, for they all knew that all mines were ever liable to the most tantalising fluctuations, and that the rich mine of to-day was the poor mine of to-morrow, and *vice versa*; yet, taking all the circumstances into consideration, they had probably adopted the most advisable course. (Hear, hear).——The meeting then separated.

GREAT WHEAL VOR UNITED MINING COMPANY.

The quarterly general meeting of shareholders will be held on Wednesday. The profit and loss account for the three months ending September is as follows:—

Black tin sold, Aug. 10	£2993	10	1		
ditto Sept. 22	3060	12	4		
ditto Nov. 3	2607	12	1		
Materials and sundries sold, and cash balance	227	12	5 =	£8889	6 11
Mine cost	£4734	0	4		
Merchants' bills	1981	1	10		
Dues	465	17	8		
Sundries	218	19	0 =	7399	18 10
Balance (profit)				£1489	8 1

The audited cash account, made up to November 16, shows a credit balance of 2240*l.* 3s. 5d. There were 134 fms. 2 ft. of ground driven and sunk through during the quarter.

PANULCILLO COPPER COMPANY.

The fifth annual meeting of shareholders was held at the offices, 23, Great St. Helen's, on Monday, Nov. 30.

Mr. JOHN PENDER in the chair.

The report showed that, in common with all producing companies, the Panulcillo Company had suffered by the low prices so long current in the article; and an additional sum was placed to the debit of profit and loss account. To this result error in management had contributed; but as one of the board, at present in Chili, has placed the management in new hands, it is confidently expected that future operations will leave a profit even at present low rates. Plentiful rains have made pasturage more abundant; this has cheapened carriage, and enabled the manager to reduce his price on coloured ores. Mr. Heatley was about to insist on a reduction in rate of railway carriage to the port, and the manager was only taking on new hands at reduced wages. The important work of the Pique Isabel had been brought to a successful end, so that the ores were, consequently, extracted more economically. The San Gregorio works were progressing.

The manager's report gave interesting details of the operations at Panulcillo.

The CHAIRMAN regretted the want of dividend, which he attributed to the low price of copper, error in management, and want of labour, with consequent reduced production. The mine is now being worked at a profit; 18 furnaces were at work, producing equal to about 5000 tons of pure copper per annum, and with various economies projected there was good hope for the future. Mr. C. B. Weir, the new manager, has had great experience as a practical miner and smelter, and has been very successful in the management of other establishments; the board consider the shareholders fortunate in the selection. In the company's first year of existence Chili copper bar averaged 91*l.* per ton (while in January of that year the price touched 101*l.*), while to-day it is under 69*l.*; upon the company's production this represents a difference of over 100,000*l.* per annum. A rise in copper on present rates of about 15*l.* per ton, together with projected economies, would in one year extinguish the balance to debit of profit and loss account.

The accounts and report having duly passed,

The CHAIRMAN, in reply to a shareholder, said the mine had not suffered by the earthquake.

A SHAREHOLDER asked if a reduction of wages would not affect the supply of labour?——Mr. EDWARD JOHNSTON (the Deputy-Chairman) replied that some few hands had left work, but were returning again. The depressed price of copper had such an effect that a neighbouring mine, employing usually 700 men, had now only 400 at work.

The CHAIRMAN expressed his opinion that if Chili copper bar went to 80*l.* the company might make a profit of 50,000*l.* or 60,000*l.* per annum.

The two retiring directors were then re-elected.

Mr. DUNCAN GRAHAM (Liverpool), in giving thanks for his re-election, remarked that he had a considerable stake in the company, and, therefore, undertook the responsibility the more willingly. He did not think the price of copper would ever reach 126*l.* 10s. again, which he, as a Chilian merchant, had frequently obtained. Prices now ranged between 67*l.* 10s. and 68*l.*, rising occasionally to 69*l.*, and in the early part or this year to 77*l.*, 77*l.* 10s.; the latter price, he thought, would be a high quotation in the future. It was a pity the company was not launched four years earlier, not that there would have been four years' working at 125*l.*, but the rates which did rule would have returned the capital twice over in the shape of dividends. Since then the adverse turn of the market has put profits out of the question. From his knowledge of Chilian affairs and men, he had every confidence in Mr. Weir, who has a practical knowledge of the copper trade, and does not take too sanguine a view of matters. Still, with the balance-sheet now before them, the shareholders must understand that at present prices there can be little or no profit, and that economies, both in railway carriage and otherwise, are imperative to the continuance of operations.

The CHAIRMAN remarked that Mr. Graham, being largely interested in the mine, and intimately acquainted with Chilian affairs, was well qualified to speak of its merits. The whole question is—are we to have copper higher? Trade may have sickened for some years, but he never saw it die yet. The aggregate demand for copper is now as large as ever, though smaller in some of its branches, such as sheathing for ships, &c.——In answer to an enquiry, Mr. GRAHAM said that in the absence of Panulcillo traffic, the Coquimbo dividend would be, at any rate, reduced one-half.

The auditors, Messrs. Harding, Whinney, and Co., were re-appointed.

A SHAREHOLDER expressed his opinion that if copper bar had remained at 100*l.* per ton—as when the company was started—instead of the present and late currency, very good dividends would have been made; and he proposed a vote of thanks to the board, which was carried unanimously, for their unremunerated services.——The CHAIRMAN replied, and stated that they were still remaining by the ship. He had not parted with a single share, but rather, he believed, increased his holding during the year. He did not think any article could long remain at a price for less than cost of production.

The usual vote of thanks was passed to the Chairman, and the proceedings terminated.

ST. JOHN DEL REY MINING COMPANY.

The half-yearly general meeting of shareholders will be held on Wednesday. The report of the directors (to be submitted) states that the last report, adopted at the meeting held on June 24, recommended the re-opening of the Bahu and West Cachoeira Mines by means of two vertical shafts. They therein stated that, feeling the importance of entering on the works with as little delay as was consistent with its safe and successful accomplishment, they had come to the conclusion that that object would be best attained by sending out a mining engineer of repute and experience to confer with the officers on the spot. Accordingly, in the course of the following month they engaged the services of Mr. Arthur Sopwith, who left by the mail of Aug. 9. On Mr. Sopwith's arrival at Morro Velho, on Sept. 14, immediate steps were taken to facilitate his survey, and the examination of the ground. With the active and cordial co-operation of the superintendent and other members of the mine conference, a unanimous decision had been arrived at as to the position and form of the shafts by Oct. 2; on the 5th levelling the surface was began, and on the 9th the work of sinking was commenced. The ground so far has been favourable; 4 fms. had been sunk in the first 20 days. The monthly produce of gold from March 22 to Sept. 22 gave an average of 9630 oits. per month from the Morro Velho stamps, and 1731 oits. from the Gaia stamps. The average monthly produce from the Morro Velho stamps for the preceding four months (those subsequent to the fire) was 8091 oits. per month. The gold returns continued steadily to increase each month from March to June, thereby realising the hopes entertained at the commencement of the half-year, that ere long the expenses would be met by the produce; this desirable end was attained in June, but from that month to the close of the half-year there was a considerable decline in the quality of the mineral available for the stamps. The decline occurred chiefly in the mineral quarried in the western section of the Bahu Mine. It was not, however, on these sections that the chief reliance was placed for a supply of the best mineral. It was known that in the upper part of the East Cachoeira there existed a considerable body of good ore, and active measures were adopted early in the year for carrying down an inclined plane at the extreme east of the excavation, under the roof, with a view to extract it. This work was completed, the walls secured, and stoping commenced in July; but, before any considerable progress had been made in opening out the ground, it was found that the south wall, hitherto sound in this section, was giving way, and it became necessary temporarily to withdraw the borers working there. Considerable delay, disappointment, and additional expenses were occasioned by this failure of the south wall, just when the work of quarrying had been commenced. A large quantity of timber, and much time, were required to secure it. By the last advices a further trial of the stoping in this section was about to be made.

Measures are also in progress for increasing the supply of mineral from the eastern part of the Bahu Mine, which, it is hoped, will prove of better quality than has been quarried further west in the same line. The directors have, however, enjoined the superintendent, in the event of these hopes not being realised, to use his utmost efforts, by the further reduction of the establishment, to bring the expenditure within the limits of the produce. The amount of expenditure over receipts on the Morro Velho Estate mining account during the half-year, as shown by the books in London, amounts to 13,022*l.* 16s. 4d. This sum includes the cost of timber contracted for previously to the fire, which, therefore, had to be received and paid for, though not consumed or immediately required, and which, therefore, is still in stock, amounting to 3000*l.*; the carriage and duties on stores shipped from England, which have not been consumed, amount to a further sum of 2505*l.*, which left the actual working loss at Morro Velho for the half-year 7517*l.* 16s. 4d. The profit on working the Fernam Paes Estate, after charging all expenditure, whether for sinking expenses or for outlay on plant and explorations, amounts to 1086*l.* 13s. 3d., leaving a net loss for the half-year on working both mines of 6431*l.* 3s. 1d. Independently of the unavoidable outlay for stores purchased in the country, and carriage and duties on stores sent from England, not immediately required, there has been a considerable outlay in the mine in putting in stulls and other timberwork, in order to prepare the different sections for working, beyond the ordinary working cost of extraction. The quantity of mineral raised from the Morro Velho Mines during the half-year has been 27,590 tons, of refuse killas (slate) there has been stamped 3323 tons, making the total quantity of mineral stamped 30,913 tons. The average yield of the whole quantity stamped has been 1·838 oits. per ton, or 4 dwts. 7·2 grs. Estimating the killas as yielding ½ oit. per ton, the average yield of the mineral raised from the mine has been 1·999 oits., or 4 dwts. 14·5 grs. The quantity of mineral stamped at the Gaia stamping-mill during the half-year has been about 4577 tons, giving an average yield of 2·144 oits., or 5 dwts. 2·2 grs. The average assay contents of this mineral has been 3·950 oits., or 9 dwts. 6·6 grs. per ton. The mean loss of gold in treatment at Morro Velho during the half-year has been 1·098 oits. per ton; for the three months immediately preceding, ending Feb. 28, it was ·500 oit.; for the three months ending August, 1867, it was 1·577 oit.

The enquiry instituted by the Brazilian Minister of Justice, and by the company's officers, into the origin of the fire, which took place in November, 1867, having failed to discover the cause, the directors, on learning that a second fire had occurred in August last, which, however, was immediately extinguished, placed themselves, without any loss of time, in communication with His Excellency the Brazilian Minister in this country, who had written to express great sympathy with the company on the sad damage caused by the first fire, and requested his Excellency to use his influence with his Government, with a view to a most searching investigation being made, under the authority of the Brazilian Government, in conjunction with the company's officers. The President of the province, and the head of the provincial police, had also been applied to for the same purpose. The financial position of the company at the close of the half-year ending November 30, in London, was—Cash at bankers and at interest, 7926*l.* 7s. 3d.; and the estimated proceeds of gold to arrive on Jan. 4, 8000*l.* To pay—drafts running to February 20, 15,000*l.* The financial position in Brazil, on October 31, was a cash balance of 6960*l.* 17s. 3d., to meet the expenditure of November. The reserved fund amounts to 49,159*l.* 17s. 10d. The amount of materials in stock by the last advices are of the value of Rs. 393,214, which, at the current exchange of 18¾d. per milrei, amounts to 30,719*l.* 17s. These have all been paid for, and charged to expenditure. Under existing circumstances it will be unnecessary to keep so large a stock in hand, and the reduction of this stock, to whatever extent it is carried out, will lessen the expenditure in that proportion.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

MINING IN MERIONETHSHIRE.—Being interested in mining pursuits, I have watched with great anxiety the preparation and execution of the works at Lanerkcill, formerly carried on by the Bala Mining Company, but latterly by the Great Northern Manganese Company, and I have from time to time had opportunities of going over the works while in progress. I have no hesitation in stating that a neater and better laid out mine it would be very difficult to find. I may mention that they have erected agent's house, good store-rooms, dressing-floors, good wheel, eight heads of stamps, leat, cut tramroad, laid up to forebreast from stamps, distance over 300 yards, the level being driven about 40 yards, and at this point the ores begin to show themselves. I was permitted by the captain to see some beautiful ore, fresh from the crucible, which I take to be silver; from 1 lb. of the ore 1¼ oz. of metal was taken. I am strongly of opinion that this property will greatly increase in value, and that in a short time. I hope to have other opportunities of visiting it, and will upon a future day write more fully.

BWLCH CONSOLS.—The violent winds of last Monday carried away the launders which conveyed the water to the pumping and crushing-wheels. New ones will be erected in the course of next week; in consequence of the delay thus occasioned, the monthly sampling will not exceed 40 tons. In all other respects the mine is looking as well as ever.

MAUDLIN.—A parcel of ore is being got ready for market, 4 tons of which are worth 4*l.* per ton, and 24 tons 3*l.* per ton. These mines, from the appearance of the lode in the deep adit, will nearly pay cost. The influx of water has retarded the working in the winze, but this difficulty will soon be overcome, and sinking resumed on a lode worth 1¼ ton of good quality ore per fathom, which will, doubtlessly, increase as the lode is proved deeper.

NEW WHEAL LOVELL.—The mine continues to look exceedingly well. Our next sale of tin, for four weeks, will be full 600*l.* worth. A detailed report will be given at the meeting on the 30th inst.

WEST FRANCES.—The continued rise in the price of tin, with every appearance of a further advance, will materially affect the position of this mine. The quantity raised and sold last quarter was about 53 tons; the highest price realised was 54*l.* 15s. per ton, at which price a profit was made to clear off the balance against the mine of 256*l.* The same rate of profit for the next quarter would pay a dividend of 10s. per share; but, as an advance of 8*l.* per ton has taken place since the last meeting, it is expected that a dividend of 20s. per share will be paid in January, and leave a balance in favour of the mine. The prospects continue good.

WEST ST. IVES.—Stamps are about being erected, when returns will immediately be made from the workings. The property is very promising, and the advance in the price of tin will very considerably help to meet costs. Shares cannot much longer stand at their present price.

STRAY PARK.—A considerable quantity of tin ground has been laid open at this mine, which previous to the great advance in tin would not pay for working, but at the present price will be worked at a profit. Several pitches have been set, which will leave a profit to the adventurers.

EAST DYLIFFE.—For a long time the voice of rumour has been occupied with these mines, and it has been constantly reiterated that the East Dyliffe Mines were about to receive a trial that would set all speculative opinion at rest as to the reality of the great value attached by most miners to this piece of ground. Recently the trials in the Pinylimmon range have opened people's eyes as to the splended bodies of ore concealed in these rocks. The Pinylimmon Consols Company, with a boldness too little imitated, a short time ago gave 5000*l.* to some working miners, who had discovered a vein of lead at the surface, near the summit of the mountain. They have cut open this course of ore for upwards of 100 fms. long continuously, and are now reaping a splendid harvest, in the shape of a good fortune, from it. Mr. Pugh, of Aberystwith, some twenty to thirty years ago, opened up the Old Cwmystwith Mine, in this parallel channel of mines, and in twelve years realised a fortune of fully 130,000*l.* from it. The Great Dyliffe Mines, worked by Messrs. Bright and Co., will make possibly about a quarter of a million sterling in about the same time. These lodes run into and through a piece of untried ground called East Dyliffe. They are now highly productive near the boundary, to a depth of upwards of 100 fathoms. As there are no cross-courses, slides, or channels of ground to disturb these rich bodies of ore in their course, it is almost a certainty that these great formations of lead and copper will continue into the East Dyliffe sett. It is now put beyond doubt that a powerful company are making earnest arrangements for sinking on the backs of these great lodes. It is a matter beyond dispute that the opening of such mines as Dyliffe find the necessaries of life abundantly for an energetic and frugal mining population, high interest for the capital of the investor, good incomes for the landlord, and prosperity and additional bullion for the nation. It may truly be said that this elevated country has, in winter, a rather inclement climate; but, while on the other side of the edge our fellow-Englishmen are clearing 20,000*l.* a-year, few of our countrymen, who are not even deterred by the atmosphere of the Sierra Nevada, will hesitate to venture to Plynlimmon, only a journey of eight hours from London, in search of wealth.

EAST NEW WHEAL LOVELL.—We have discovered the main lode of the district in costeaning, and it is certainly one of the finest looking I ever saw, and cannot fail as depth is attained turning out large quantities of tin.

NORTH TRESKERBY.—It is satisfactory to find that, notwithstanding the recent considerable advance in the market value of this property, the shares are being rapidly absorbed by persons residing in the immediate locality of the mine. There is every reason to believe that the 120 will shortly come into a good course of ore, in which case the returns would be considerably increased; as it is, the 130 is producing about 3 tons of copper ore per fathom, and has every appearance of becoming more productive. The character of the mine has, undoubtedly, considerably improved during the last fortnight. It may be added, that a small increase in the returns, irrespective of any advance either the price of tin or copper, would at once place this mine in a profitable position; and it is not, perhaps, generally known that the tin-producing capabilities of a portion of this property may at no distant date engage the attention of the executive.

WEST WHEAL KITTY.—This mine is getting into a very prosperous state, and it should not be forgotten that it is in one of the best positions in Cornwall. There is a most excellent prospect here, and it will not be surprising if ere long it turns out a fair, legitimate mining prize.

[ADVERTISEMENT.]

From Mr. EDWARD COOKE:—The market has been very buoyant, and the demand for shares in tin mines has been in excess of the supply. The prospects of the mining interests of Cornwall are very cheering. Many of the mines are at present looking well, and among them I may name NEW WHEAL LOVELL. On December 3 the tin sold, the produce of one month, amounted to 551*l.* 4s, 2d. On Dec. 29 the tin for December will be sold, estimated to realise 600*l.* This will be a proof of the correctness of my remarks on former occasions on the merits of this mine. The current monthly profits are 200*l.* to 250*l.* The adjoining mine to the east—EAST NEW LOVELL—is likely to prove equally valuable, and the shares at the present low price well worth buying. Another mine, selling at a very low price—SOUTH GREAT WORK—is deserving of special attention. Before the next meeting, in four months time, it is very likely that three lodes will be met with, one of which is termed the Giant lode, and is expected (from indications) to open a valuable piece of tin ground. Judging from the numerous applications for the shares in the GREAT WESTERN MINES, it is very probable the list will be closed in a few days. About 4000 shares up to this time (Friday morning) have been applied for. I believe I am correct in stating that from the commencement of operations by the new company the returns of tin will be more than enough to pay the actual working costs. The various points in operation, according to the agent's weekly report this day, are valued at about 100*l.* to 110*l.* per fathom (in the aggregate) for tin. There has never been a mining property, in my opinion, ever offered to the public of a more legitimate character, and on such favourable terms. I feel confident that early next year the shares in the Great Western Mines will attain a very high figure. —FRANK MILLS: I am informed on good authority that at the next meeting a dividend of 4s. per share will be declared, and a large cash balance carried forward to the credit of the company. Surely if this were generally known the shares, instead of standing at 3*l.* 5s. to 3*l.* 10s., would be at the present time 5*l.* to 6*l.*, which would appear to be their real value. GREAT WHEAL VOR is said to be looking better. The rise in the price of tin will have a very beneficial effect on the financial position of this company, selling, as it does, about 50 tons of tin per month. The report of the inspecting agents upon the CHIVERTON MINE states that 30 fathoms have already been driven on in the lead ground, producing from 5 cwts. up to 3 tons of lead ore per fathom. The lode in two places is valued at 50*l.* and 70*l.* per fathom—the former, in the rise from the bottom of the 20 is for 12 feet long; and the latter, in a winze 9 feet long. The report concludes by a reiteration of the agent's former opinion, that it is one of the best discoveries ever made in the district.

A change has taken place in the direction of the Taquaril Mining Company (Limited), an undertaking which was formed to work a mine adjoining that of the St. John del Rey Company, in Brazil. At a meeting of the Taquaril Company's directors, held on Friday, the whole of them, except two resigned, and five new directors were elected, including Mr. Henry Haymen, who becomes Chairman. It is stated that the works will be pushed forward under the superintendence of Capt. Thomas Treloar, as consulting engineer. As a consequence of these changes, the whole of the 40,000 unissued shares of 1*l.* have been taken up, thus completing the company's capital. The St. John del Rey is now the only English mining company working in Brazil that is not under the Chairmanship of Mr. Haymen.

The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT an increase in the "notes issued" of 137,205*l.*, which is represented by a corresponding increase in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there is shown a decrease in the "public deposits" of 406,692*l.*, and in the "seven day and other bills" of 58,201*l.*; together, 464,893*l.*; an increase in the "other deposits" of 364,152*l.*, and in the "rest" of 927*l.*; together, 373,423*l.*—91,470*l.* On the asset side there was a decrease in the "public securities" of 1,000,000*l.*, and an increase in the "other securities" of 116,419*l.*=883,581*l.*, showing an increase in the total reserve of 792,111*l.*

The directors of the Provincial Bank of Ireland have declared a dividend for the half-year ending Christmas next at the rate of 4 per cent. on the paid-up stock, and also an extraordinary dividend of 30s. on each 100*l.* share, and 12s. on each 10*l.* share, payable on Jan. 15.

A meeting was held at the London Tavern, on Thursday, with the object of forming an Association for the Protection of Shareholders. A resolution was carried, which declared the necessity of the immediate formation of such a society, and that its objects be to enable members to obtain every information respecing companies in which they are interested, to secure the best legal advice, and institute prosecutions in cases of well-ascertained frauds.

The Master of the Rolls has appointed Mr. Frederick Whinney (of Harding, Whinney, Gibbons, and Co.), official liquidator of the United Service Company (Limited).

Creditors of the General Provident Assurance Company (Limited) are required to send the particulars of their claims to Mr. Edward Addis, the official liquidator, by Jan. 1—the 16th having been appointed by Vice-Chancellor Malins for adjudicating upon them.

COAL MARKET.—Ninety-nine fresh ships arrived during the week. The weather being mild the trade in house coals has fallen off, and business has ruled dull, prices quoting a decline of fully 6d. per ton. Hartley coals have remained steady at previous value. Hetton Wallsend, 18s.; Eden Main, 16s.; Hasting's Hartley, 15s. 6d. Unsold, 6 cargoes: 110 ships at sea.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Higginson Liverpool, we learn that the quantity of coal exported in November was 675,959 tons, against 851,809 tons in the corresponding month of 1867, showing a decrease of 175,850 tons. The particulars are—From the Northern Ports, 274,885 tons; Yorkshire, 30,677 tons; London, 5359 tons; Liverpool, 71,110 tons; Severn Ports, 229,470 tons; and Scotch Ports, 64,458 tons. The decrease was—From Northern Ports, 89,978 tons; Yorkshire, 12,852 tons; London, 753 tons; Liverpool, 11,981 tons; Severn Ports, 54,600 tons; Scotch Ports, 5686 tons. Total, Jan. to Nov., 9,264,298 tons; corresponding month last year, 9,133,896 tons: showing an increase of 130,402 tons.

BRANDY.—Messrs. Rouyer, Guillet and Co., write on Nov. 25 from Cognac:—"Since our last there has been little change in the state of our market. The growers keep their pretensions so very high that it is almost impossible to buy any 1868 vintage, even at a price equal to the usual quotations for 1867's. These circumstances, as well as the surplus value that affects the 1867 and older brandies, on account of the 1868 vintage having made its appearance on the market, have induced us to augment our prices 3d. per gallon."—[It is said that this is the brandy selected by Count Bismarck for his own use.]

RAILWAY SHAREHOLDERS, or those thinking of becoming so, should READ HANNAM and Co.'s JUNE CIRCULAR, free by post from either of their offices,—449, STRAND, LONDON, W.C., or ROYAL INSURANCE BUILDINGS, MANCHESTER.

FOREIGN STOCKHOLDERS, or those thinking of becoming so, should read HANNAM and Co.'s JUNE CIRCULAR.

ANGLO-AMERICAN OR ATLANTIC CABLE STOCKS.—All interested in these undertakings, or about to become so, should read HANNAM and Co.'s MARCH and APRIL CIRCULARS, as well as JUNE CIRCULAR.

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Investments may now be made on peculiarly favourable terms in Idaho and Nevada respectively, the richest gold and silver producing districts as yet discovered. The properties noted have been carefully selected and reported on by tried and well-known English agents, and will yield early returns.—Full particulars with JUNE CIRCULAR on application.

MISCELLANEOUS SHARES.—All investors with spare capital and capable of taking advantage of the opportunities afforded by a panic-stricken community, should make careful selections of shares now selling at far below their real value.

For particulars see HANNAM and Co.'s JUNE CIRCULAR, which may be had at either of their offices, 449, Strand, London, W.C., exactly opposite Charing-cross Station and Hotel, or at Royal Insurance Buildings, Manchester.

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AT CHRISTMAS many persons are induced to take more than is wholesome. Two or three of PARR'S LIFE PILLS will clear off ACIDITIES, and remove FEVERISH HEADACHE and other unpleasant symptoms, without pain or inconvenience. PARR'S LIFE PILLS may be obtained of any medicine vendor, in boxes 1s. 1½d., 2s. 9d., and in family packets 11s. each. Directions with each box.

WATSON BROTHERS' MINING CIRCULAR

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MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1865), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services to all connected with mine or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

GWYDYR PARK—"H.E."—The last call (9d. per share) we understand was made on Sept. 17, and the calls have been generally 6d. to 9d. per quarter. The mine has been worked some years to complete the great point in it—a communication between the engine-shaft and the deep-adit, which has been driven for the purpose between 200 and 300 fms. The shaft, upon which a steam-engine has been erected, is now down 22 fms., and will communicate with the deep adit in 4 fms. further sinking, in about three months, when the agent said in his report to the last meeting he could "break lead to a profit." There are several known good lodes in the mine, which from the enquiries we have instituted, seems an excellent speculation, at a very low price indeed. The amount paid on the shares is 2l., and they are now so low that there is very little risk in buying.—Since this was written, a call of 1s. per share has been made, which will be sufficient to last till the shaft and deep adit have been communicated.

SOUTH CARN BREA.—This mine was sold with all its machinery in one lot in 1866, when tin had dropped to 42l. per ton. Since then it has remained idle, but the workings in Wheal Uny, on the same lode, have been proving its value; and now that tin has risen 20l. per ton, and likely to go higher, the proprietors are about to rework it, in 5000 shares. The machinery on the mine is to be taken by the new company at a valuation; its comes out under its old name, and not a farthing is charged for either premium or promotion money. Before the prospectus was issued, 2500 shares were taken in Cornwall, and we have been asked to receive applications for part of the remainder, which we have consented to do. The first call will be 5s. per share, and during the next twelve months it is probable 20s. per share in all will be required.

SATURDAY.—Market rather flatter to-day for Prince of Wales, Grenville, Chiverton, South Condurrow, and Chontales. Prince of Wales, 30s. to 32s. 6d.; Grenville, 30s. to 32s. 6d.; Chiverton, 5¼ to 5¾; South Condurrow, 18s. to 20s., Chontales, 2¾ to 3; Don Pedro, 4 to 4¼; West Frances, 41 to 43; East Grenville, 3¼ to 3⅜; Uny, 3⅛ to 3¾.

MONDAY.—Market very quiet. Chontales, East Grenville, Prince of Wales, South Condurrow, and North Roskear weaker. Chontales, 2⅛ to 2¾; East Grenville, 3¼ to 3⅛; Prince of Wales, 30s. to 32s. 6d.; South Condurrow, 17s. to 19s.; North Roskear, 10 to 11; East Caradon, 6 to 6¼; Great Vor, 11¾ to 12; Chiverton, 5⅛ to 5¾; West Frances, 41 to 43; Grenville, 30s. to 32s. 6d.

TUESDAY.—Market again quiet; dealers busy with the settlement. Chiverton, 5⅛ to 6; Prince of Wales, 30s. to 32s. 6d.; West Frances, 40 to 42⅛; West Seton, 190 to 200; West Chiverton, 60 to 62; Grenville, 30s. to 32s. 6d.; Chontales, 2⅜ to 2⅝; Don Pedro, 4 to 4¼.

WEDNESDAY.—Good demand for Grenville, at 31s. to 33s.; Chiverton, 5¾ to 6; Chiverton Moor, 6 to 6¼; Seton, 60 to 65; West Seton, 190 to 200; West Frances, 40 to 42¼; Drake Walls, 16s. to 18s.; Chiverton Valley, 3 to 3¼; Tincroft, 15⅛ to 16⅛; East Caradon, 7 to 7⅛; Prince of Wales, 29s. to 31s.; Chontales, 2⅛ to 2⅜; Don Pedro, 4 to 4¼.

THURSDAY.—Active demand to-day for Chiverton, Providence, Seton, West Seton, East Caradon, Drake Walls, Chontales, Grenville, and Chiverton Valley. Prince of Wales declined to 28s., sellers; Chiverton, 6 to 6¼; Providence, 32½ to 35; Seton, 62½ to 67½; West Seton, 190 to 195; East Caradon, 7⅛ to 8; Drake Walls, 16s. to 18s.; Chontales, 2⅛ to 2¾; Grenville, 31s. to 33s.; Chiverton Valley, 3 to 3¼; Great Vor, 11 to 12; West Frances, 40 to 42¼; West Chiverton, 59 to 61; Uny, 3¾ to 4; Don Pedro, 3⅞ to 4; Great Laxey, 20 to 21.

FRIDAY.—Good demand for Grenville, East Grenville, Prince of Wales, East Caradon, Drake Walls, Cook's Kitchen, West Seton, Seton, Tincroft, and Uny. Grenville, 31s. to 33s.; East Grenville, 3¼ to 3½; Prince of Wales, 28s. to 30s.; East Caradon, 8 to 8¼; Drake Walls, 18s. to 20s.; Cook's Kitchen, 12 to 13; West Seton, 185 to 195, ex div.; Seton, 62½ to 67½; Tincroft, 15½ to 16½; Uny, 3¾ to 4; Chiverton, 6 to 6¼; Great Vor, 11½ to 12⅛; Chontales, 2¼ to 2¾; Don Pedro, 3⅞ to 4.

Mining Correspondence.

BRITISH MINES.

ABRAHAM CONSOLS.—J. Vivian, Dec. 17: The lode in the 27, driving east of shaft, is opening wider, and more promising for tin. The lode in the 27, west of shaft, is changed in character the last 6 ft.; it is in soft white granite—the kind of strata that has yielded tin; so far as we have seen the lode is improving.

BRADDA.—R. Barkell, Dec. 12: The engine-shaft is down about 8 fms. below the 50; ground rather hard, and water oozing out in every direction. The 50 north is without any material change since last reported on; lode composed of spar, and a little copper ore, with a dark vein on the west cheek 10 inches wide. The character of the lode in the 50 south is similar to that just described. The only change of importance is in the 40 cross-cut, on the east lode, and in the sump sinking below the 27; in the former place the lode is now worth fully 3 tons of lead per fathom, with an improving appearance as we advance, and there are no signs of being through the lode. The lode in the sump will produce more than 2 tons of lead per fm., and as this is immediately above the cross-cut, there is every probability of having a good course of lead to stope on, as soon as it can be laid open; to facilitate this I think it advisable to drive another cross-cut at the 40, about 25 fms. south of the present one, and when the lode is intersected to drive on its course. All the machinery is in excellent working order.

BRONFLOYD.—T. Kemp, Dec. 16: Our progress in cutting through the lode in the 73, to the south of the new shaft, is at present slow, owing to the hard nature of the ground; there is no change here to notice. The lode to the west of the cross-cut, in the 62, is worth 2 tons of ore per cubic fathom. The lode in the winze sinking below this level is not looking so well, but is still producing some good lead. The stope under the 52 is worth about 1¼ ton of ore per cubic fathom. The stope to the west of winze, in the back of the 52, is producing 1 ton of ore per cubic fathom. The part of the lode opened on by the 40 end west is composed of soft blue slate, intermixed with mundic; I hope to see the ground at this point becoming more settled shortly. We shall sample on Saturday next 66 tons of lead ore, for sale on Dec. 30.

BRYN GWIOG.—Stephen Harper, Dec. 16: In the 85 fm. level, west of Bramwell's shaft, the lode still continues much of the same character and value as when last reported on. The lode in the 75, west of said shaft, is still continuing large, with a little more spar, intermixed with lead ore; also letting out more water; still favourable for progress. From the dialling of this level, underground and at surface, I find we are within a small distance to the old engine-shaft, and, from the appearance of the ground, we may soon expect to meet with good deposits of lead ore. The lode in the 85, east from Adams' winze, is still about 1 ft. wide, worth about 15 cwts. of lead per fathom.—Lloyd's Shaft: In the 60 yard level, driving west from the cross-cut, on the lead-bearing ground, we have met with some fine deposits of lead in the soft ground up to yesterday, when we cut into some old workings. We shall continue on for a few days again, when, if we do not meet with something encouraging, I shall put the men to sink in the level where we passed over the lead-bearing ground. In the cross-cut south, having met with very hard ground, and the joint fallen off so very small, I thought it most advisable to suspend it for the present, and turn our attention to the points where we are more likely to meet with a success. In consequence of the very heavy floods of rain in the past fortnight our water to the engine has most considerably increased, inasmuch that the engine has enough to do to keep it under. Since we have fixed on our new wire-rope we are making good progress in the drawing.

BRYNPOSTIG.—J. Kitto, Dec. 17: The lode in the engine-shaft, sinking below the 24, is 4 feet wide, and yielding good saving work for lead, and improving as it goes down; sinking by nine men, at 12l. per fathom. There is no change of importance in the 24 fm. level ends, driving east and west of engine-shaft, except that in the latter the lode has got much larger and more porous, and letting out such a quantity of water as to almost overpower the engine. This has been an invariable indication of the near approach of a bunch of ore. We have three tribute pitches working in the back of the 24, at prices varying from 50s. to 3l. per ton; and three others in the 12, working at 4l. per ton, and yielding their usual quantity of ore. We have resumed the driving of the adit level eastward into the Rhoswen sett, where the lode is daily improving in character, and I expect shortly to be able to report an important discovery.

CAMBORNE VEAN.—N. Clymo, Dec. 17: Since the last report we have been much hindered at the shaft by the overflow of water from the adit, caused by the excessive rains we have had lately; we have now overcome this, and are continuing the sinking. The lode is hard, and worth about 3 cwts. of tin to the 100 sacks, or 20l. per fathom. The other parts of the mine are the same as last reported. We have a fine stream of water at the stamps, which are now in full work.

CAPE CORNWALL.—R. Pryor, H. Hosking, Dec. 14: No particular change has taken place in this mine worthy of notice during the past week, with the exception of the ground in the 100 fathom level cross-cut north, being mixed a little more with spar, which has made it a little more spare for driving.

CAPEL BANHAGLOG, OR EAST MID-WALES.—John Kitto, Dec. 17: The lode in the deep adit level, driving west, is from 3 to 4 ft. wide, and of the same favourable character for the production of ore as formerly, but we have had no lead to value for the last few fathoms; but this, considering the shallowness of the level, is nothing more than might be expected. The sinking of the engine-shaft, which is about 25 fms. in advance of the adit level, is progressing favourably, and is being sunk by six men, at 5l. 5s. per fathom. This will be down to the adit level by the time the end is driven up to that point, when no time will be lost in commencing to sink below, as I consider it to be of the utmost importance to get down to a deeper level with as little delay as possible. The smithy, carpenters' shop, store-room, and office are all nearly completed, and would have been finished ere this if the weather had been at all favourable; but, being so very bad, the masons have not been able to proceed with their work.

CARADON CONSOLS.—S. Bennetts, Dec. 12: During the past quarter the operations in the mine have been almost entirely confined to the extension of the levels. On Clymo's lode west the 68 fathom level has been extended only 1½ fathom. At first, the lode beyond the last small cross-course had a very promising appearance, and seemed to be opening out wider, but it again became small, and the end, consequently, suspended. The 78, on the same lode, has been further extended 9½ fms., with but little change until the last 2 or 3 fathoms, where the lode has improved from 1 ft. to 2 or 3 ft., and also more productive in ore, being worth from 5l. to 7l. per fathom, the lode altogether looking very favourable. The north dropper, or perpendicular, lode is now in contact with it, and seems to follow the course of Clymo's lode, which indicates its being a part of the same. The 78 fathom level cross-cut north has been further extended 9½ fms., so as to intersect the gossan lode, which we found to be from 2 to 3 ft. wide, composed principally of gossan, with a small quantity of ore in and about it. On the north side of it is found a sort of elvan about 2 ft. wide, containing spots and faces of grey ore. On the south side, for 2 fms. near the cross-course, all the joints in the granite are coated with the red oxide of copper—indications of something good, surely. We have driven on this lode west about 6 fathoms, and just cut through the western part of the cross-course; this part removed the lode 3 ft. north. On the west side it is just the same as on the east—fully 3 ft. wide, nearly all gossan, and altogether a fine-looking lode. In the 58 there was plenty of gossan, but no oxide of copper, as we find in the 78. Even this level does not seem deep enough for such a lode. Some 7 to 10 fms. north of this is another lode, about 2 ft. wide, seen in the 58, and containing spots of ore and plenty of peach; seen also in the 34, very similar in character, but never opened on anywhere beyond the cross-course, and yet some short distance further north there are two or three other lodes to be seen before the old engine lode is reached. The main lode, too, is, in all probability, only some 3 fms. or so south of the Clymo's, in the 78, on the second cross-course, where we have just commenced a cross-cut to intersect it. In respect to the future operations, I should suggest the propriety of pushing on the 78 west, on Clymo's lode, the 78 west, on Gossan lode, the cross-cut south to intersect the main lode (which had a very promising appearance, and produced some good ore in both the 58 and 68), and also the continuation of the cross-cut north, to intersect some of the nearer lodes at least. The further sinking below the 78 may be dependent on the appearance consequent on the further opening out of the different lodes in this level.

CASTELL CARN DOCHAN.—J. Parry, Dec. 16: The ground in the forebreast of the driving from the deep cross-cut continues very hard; consequently, our progress in driving is slow. The lode is fully 3 ft. wide. The quartz is of a very promising character, but as yet we have not seen any gold in it. It is impregnated, especially the north side of it, with spots of clean galena.

CEFN BRWYNO.—J. Paull, Dec. 15: The lode in the 92, going east of engine-shaft, is 3 ft. wide, yielding a little ore, not of much value, but still of a promising character; in the same level, west of engine-shaft, no lode has been taken down since my last report. At the 80, going east of engine-shaft, the lode is 2 ft. wide, worth 12 cwts. of lead ore per fathom; the lode in the same level, west of shaft, is very large and hard, producing good stones of ore and a great deal of blende. At the 56, going east of engine-shaft, the lode is 2 ft. wide, with every appearance of soon opening out productive. There is still a great quantity of water issuing from the end of the cross-cut north at the 20, and also branches of spar crossing the level, which contain spots of lead ore. I should recommend the cross-cut to be driven a little further ere we commence to drive on the branch or lode already intersected.

CHANTICLEER.—Wm. Wasley, Dec. 17: Since my last report, owing to an increase of water after the heavy rains, I have removed the men from the sump in the bottom of the 110 yard level, and put them to stope the eastern end of the rise in the roof of the 110 yard level, where, I am glad to say, we are getting some very fine lumps of ore, and the lode looking very promising. We shall soon commence to dress another lot of ore for sale.

CHIVERTON MOOR.—James Juleff, Wm. Bennetts, Dec. 17: The lode in the 85 end, west of the engine-shaft cross-cut, is 18 in. wide, composed of soft spar, mundic, and flookan, with a kindly appearance. In the 75 west the lode is improved, and now producing 3 cwts. of silver-lead per fathom. In the 65 east the lode is 3 ft. wide, producing good stones of silver-lead. At Clogg's shaft we have fixed a plunger-lift in the 30, and the shaft in full course of sinking below.

CUDDRA.—F. Puckey, A. Cundy, Dec. 16: In the 142, west of Walker's shaft, we are driving by the side of the lode to get back under the run of tin ground gone down from the 130; the ground is of a congenial character, but spare for progress. In the stope in the back of the above level the lode is 8 ft. wide, worth 12l. per fathom. In the 130, west of shaft, we are driving on the lode, and carrying about 12 ft. of the same, worth 40l. per fathom for that width. Having completed the stull in the back of this level we are now dessing the lode, none of which has been taken down since last reported on. In the stope in the bottom of the 100, from the winze, the lode is 8 ft. wide, worth 16l. per fathom. The lode in the two stopes in the back of the 100 will average 9 feet wide, each worth 15l. per fathom. In the back of this level we are cutting out a portion of the lode still further east, which we find to be of considerable promise, producing some good work for tin, but we have not yet ascertained its full size and value. Our tribute pitches are without alteration. Should the weather prove favourable we hope to get the additional 12 heads of stamps to work by the end of next week. We are happy to say another rise of 2s. in the standard took place on Thursday, and a further rise of 2s. on Monday last.

CWM DARREN.—R. Clocker, Dec. 17: The silver-lead ore in the shaft still continues to improve as we go deeper, and from the present appearance I have no doubt will continue to do so. The machinery is in good order, and working well, with a plentiful supply of water.

DOLCOATH.—J. Thomas, Wm. Provis, J. Tonkin, J. Bawden, Dec. 14: The engine-shaft sinking under the 290 is producing a little tin. Since the last account we have cut through the lode in the 290, east of engine-shaft, and found it to be 9 feet wide. We are now driving east, and the lode is worth, for 6 feet wide, 45l. per fathom. The 290, west of engine-shaft, is not of much value. The 278, east of new east, is worth 30l. per fathom. The 278, west of old sump, is much improved since the last account, and is now worth 40l. per fathom. The winze under the 266, just over this end, is worth, for 9 feet long, 40l. per fm. The 266, east of new east, is producing a little tin. The 266, west of old sump, is worth 30l. per fathom. The winze under the 254, just over this end, is worth, for 9 feet long, 60l. per fathom. The 254, east of new east, is producing a little tin. The 254, west of old sump, is worth 15l. per fathom. We have just commenced to sink a winze under the 242, about 12 fathoms before this end, where the lode is worth, for 9 feet long, 30l. per fathom. The 242, west of old sump, is worth 30l. per fathom. The 242, east of new east, is worth 10l. per fathom. The 230, east of new east, is unproductive. The 230, west of old sump, on the north lode, is worth 12l. per fathom. The 220, west of Harriett's, on the north lode, is producing a little tin. The 236, west of Harriett's shaft, is worth 15l. per fm. The winze under the 224, just before this end, is worth, for 9 feet long, 40l. per fathom. We have set Harriett's shaft to sink under the 236 fathom level. The 224, west of Harriett's, is worth 40l. per fathom. The winze under the 212 is holed to this end. The 212, west of Harriett's, is worth 10l. per fathom. The 210, east of new east, is just under Valley shaft, which is sinking under the 190, and producing a little tin. We are now cutting north through the lode at the 210, and find it to be worth, as far as driven, 15l. per fathom. The 215, east of Stray Park, is worth 10l. per fathom.

EAST CHIVERTON.—J. Grose, R. Southey, Dec. 16: Bartlett's flat-rod shaft is sunk about 12 fathoms below the 25; sinking by nine men, at 27l. per fathom. The water has increased a little, but nothing to impede the progress of sinking, and we hope that, if the lode is not met with in the next 3 or 4 fathoms, a very short cross-cut will intersect it. The nature of the ground is everything that could be desired for the production of silver-lead ore. The main cross-cut north is extended from the shaft about 55 fathoms, now driving by four men, at 28s. per fathom; this end is in decomposed elvan, and of precisely the same character of ground as they have in Wheal Chiverton about the new lode. There is no other change to notice.

EAST DARREN.—Dec. 15: Taylor's Shaft: In the 116 east the lode is large, yielding saving work for dressing of a low quality. In the 104 east the lode is from 4 to 5 ft. wide, producing 2 tons of lead ore per fm. In the 92 east the lode is 1 yard wide, producing 1¼ ton of ore per fathom. The lode in the 92, west of Boundary, is ½ yard wide, composed of a grit, clay-slate, and stones of lead ore at times. In the 80 east the lode is from 5 to 6 ft. wide, composed of a light clay-slate, carbonate of lime, and small strings of lead at times, but not to value. In the 68 east the lode is 1½ yard wide, yielding 1 ton of lead ore per fm. The tribute pitches throughout the mine continue to yield their average quantity of ore. There is no change in any of the other bargains since last reported upon. Our machinery, with the drawing and dressing, progresses regularly, and we have a full supply of water.

EAST GUNNISLAKE AND SOUTH BEDFORD CONSOLS.—J. Bray, Dec. 16: There is no change in the mine since my last report. We are getting on with our surface work at Impham as fast as possible.—P.S. The end on the Impham lode is 5 feet wide, producing 4 tons of ore per fathom, and kindly for further improvement.

EAST ROSEWARNE.—C. Glasson, Dec. 17: At King's shaft, sinking below the 115, the lode is still holding good; it is 12 in. wide, worth 10l. per fathom. In the 115, west of shaft, the lode is 15 in. wide, worth 6l. per fathom. In the 115, east of shaft, the lode is 12 in. wide, worth 3l. per fathom. In the rise in back of the 105, west of shaft, the lode is 8 in. wide, producing very good stones of copper ore, but not enough to value. In the 105, east of shaft, the lode is 10 in. wide, worth 4l. per fathom. In the 95, east of shaft, the lode is 10 inches wide, producing stones of copper ore, and likely to improve, as the nature of the ground is looking more promising for making copper ore.

EAST SETON.—J. Vivian and Son, W. Thomas, jun., Dec. 17: We have commenced to sink Basset's engine-shaft under the 20, with six men and two boys. The 20 is being driven east of shaft, with three men and three boys, at 45s. per fathom, and in which we shall make rapid progress towards the orey ground seen in the 10. Cartwright's shaft is sinking under the 20, with six men and three boys, at 10l. per fathom; we are making good progress here also. The cross-cut in this level, towards Henrietta lode, is set to two men and two boys, at 4l. per fathom, now in 4 fathoms from the shaft; the lode is supposed to be 9 fathoms from the shaft.

EAST SNAEFELL.—W. H. Rowe, Dec. 15: There is very little change to notice this week. We shall be ready, all well, to drive out the 35 fathom level on Monday next. The ground is improving in the 21 south, and the lode getting stronger. The lode is also widening in the 20 fathom level sump, which is now down 9 feet.

EAST TRUMPET.—Richard Quentrall, Dec. 17: The 82, west of engine-shaft, has just passed through the cross-course; the lode is 8 inches wide, producing stamping work. We expect an improvement in this end shortly, as the water is issuing freely, and it has drained the level above, where we have a run of tin ground, 10 fms. beyond this end. The 72 is communicated with the new whim-shaft. We have driven through 20 fathoms of moderate tin ground in this level; the lode at present is worth 6l. per fathom. We have set a stope in the back, at 1l. 7s. 6d. per fathom; the lode is also worth 6l. per fathom. We have three stopes in the back of the 60, at 30s. per fathom, worth, on an average, 4l. per fathom. An important feature in this mine is the ground being softer than at the upper levels, and the tin ground lengthening in depth, as in Trumpet Consols.

EAST WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Dec. 12: The lode in the 120 east is 1 foot wide, containing quartz and stones of copper ore. The lode in the 10 east is 20 in. wide, with stones of grey and black ore. The lode in the 95 east has not been taken down since last reported. The lode in the 85 east, from the cross-course, is from 10 in. to 1 ft. wide, and worth 1½ ton of copper ore per fathom. The lode in the 75 east is 20 in. wide, and worth fully 1½ ton of copper ore per fathom. The lode in the 65 east is from 1 ft. to 15 in. wide, containing stones of copper ore, mundic, and quartz. The lode in the 55 east is 20 in. wide, producing 1½ ton per fm. The lode in the rise above this level will produce 3 tons of ore per fathom; we have not done much here this week, the men having been engaged putting in an air-machine. The lode in the 45 east is 15 in. wide, and worth from 1 to 1½ ton of ore per fathom; this is a kindly lode.

— G. R. Odgers, J. Harris, Dec. 16: The men are making good progress with the driving of the 120 east. The lode in the 110 east is 20 in. wide, with good black and grey ore—saving work; this is a kindly lode. The lode in the 95 east is without any change, as the men are driving by side of the lode. The lode in the 85 east is worth 1½ ton of copper ore per fathom; here the men have been engaged securing a piece of ground, in order to bring away their stuff, so that but little has been done on the lode since our last advise. The lode in the 75 east is 20 in. wide, and worth fully 1½ ton of copper ore per fathom; the lode here has invariably been the best in the bottom of the level, which leads us to expect a better lode in the 85, as it progresses under it. The lode in the 65 is 15 inches wide, of mundic and quartz, containing a little copper ore. The lode in the 55 is 2½ ft. wide, a strong and very promising lode, worth 1½ ton of ore to the fm. The lode in the rise is much the same as last reported, worth from 2½ to 3 tons of ore per fathom. The lode in the 45 east is worth 1 ton of copper ore per fm. We are busy sampling our tinstuff.

— G. R. Odgers, W. Bennetts, Dec. 17: The 110 fm. level east has improved; it will now yield 1 ton of ore per fathom. All the other places are looking precisely the same as we before advised you.

EAST WHEAL REETH.—T. Uren, Dec. 17: We have holed the new shaft, and begun clearing and repairing the adit, and are getting on well, considering the time of year. We shall now let down the water, and work on the tin lode again. If it had not been for the failure in the adit we should have had a quantity of rich tinstuff to surface by this time. Our new shaft is handy to the stamps, as we shall be able to wheel the tinstuff into them.

EAST WHEAL LOVELL.—R. Quentrall, Dec. 16: North Lode: The new shaft, which is 6 fms. below the 60, is worth 70l. per fathom.—South Lode: We have intersected the run of tin ground at the 60 west, where we have a lode worth from 35l. to 40l. per fathom. This speaks well for our prospects in depth. The 50 west is worth 40l. per fathom.

FRANK MILLS.—J. P. Nicholls, J. Cornish, F. Cornish, Dec. 16: The cross-cut east, at the 145 north, is just the same as reported last week. We have suspended the 130 fm. level cross-cut west, not having intersected any lode in that direction; and the ground in the end being rather hard, we think our chances therefore, of cutting any more lode at an end. The two stopes in the back of the 145, on the east lode, are yielding ¾ ton of lead ore per fathom respectively. The lode in the 72 fm. level, driving north, is producing ¾ ton of lead per fathom. The lode in the south end, at this level, is without change. The two stopes in the back of this level are producing respectively 1 ton and ¾ ton of lead ore per fathom. The lode in the 84, driving north, is producing ¼ ton of lead ore per fathom. We have no change in the 60 south, which is at present suspended, and the men are now engaged driving a cross-cut west at this level, to cut the western part of the lode. The tribute pitches continue to yield about the usual quantity of ore, and we continue to make fair progress in the various part.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., Dec. 12: The new cross-cut at the 82 is in regular course of driving towards the lode, by six men, and will be pushed forward with all possible vigour. At the same time the timberwork in connection with the whim and engine-shaft below the 70 is in a forward state, so as to get the whim-kibble to the present bottom in the course of the coming week. The lode in the 70, east of said shaft, is worth 2 tons of ore per fathom. The lode in the stope in back of this level is worth 3 tons of ore per fathom. The men engaged in sinking the winze below the 70, on the north side of the lode, will for a short time be employed in opening a piece of ground eastward, and cutting into the lode to prove its value. The lode in the 60 east is yielding stones of ore. The lode in the winze and stope going down below the 60 is worth from 4 to 5 tons of ore per fathom. The machinery and pitwork are in excellent working condition.

GLASGOW CARADON.—Wm. Taylor, Dec. 15: Caunter Lode: The 78 west is worth 5l. per fm. Stopes in back of this level are worth from 8l. to 10l. per fm.—Arrol's Lode: The 65 east is worth 5l. per fm. Stopes on this lode are worth 8l. per fm.—Harvey's Lode: In the 65 west the lode is still disordered, worth 5l. per fathom. The 65 east is worth 8l. per fm.; we have cut this lode by the cross-cut at the 52, where it is worth east 8l., and west 7l. per fathom; we have holed from this level to the 65, giving good ventilation all through. The stopes on this lode are worth from 8l. to 12l. per fm. The ground in the cross-cut towards the south lodes, at the 78, is a little improved; this we are pushing on as fast as possible, being a very important point.

GREAT CARADON.—F. C. Harper, Dec. 12: During the present quarter we have been busily engaged in some important work in the shaft, such as dividing, casing, and fixing a substantial footway to the 82; all this work we are pleased to say is quite complete, the operations are now confined to one point—the 82 fathom cross-cut, where the ground is very hard indeed and letting down a quantity of water; our operations, therefore, being so limited, consequently I have but little to report to you on this occasion. I again would observe that in sinking the shaft through the upper levels the 40, 60, and 72, some favourable lode was passed through in the 72; where the lode was intersected it was 4 ft. wide, presenting most favourable appearances, composed of mundic, quartz, peach, and some stones of very fine copper ore. It is our most anxious hope that this lode, when intersected in the 82, may prove something of great importance. The engine and pitwork are all in excellent working condition.

GREAT LAXEY.—R. Rowe, Dec. 16: We have resumed the driving of the 210, north of the Welch shaft, and hope without further interruption to carry it up to the ore ground. The lode in the 200 end is without much change as to value, but increasing in size; this we may expect, judging from the 190, almost immediately above, where we have a lode 15 ft. wide, rich in blende and lead. The 200 end at present is worth about 70l. per fm. In driving the 190, north of the slide, we have met with a heavy flow of water, rendering it most difficult to carry the vein; we have, therefore, considered it advisable to drive by its side for a short distance, when we expect to get into drier ground, and can again cut into the lode. In the 180 we have still a large and valuable lode, which, at present, we are only carrying a part of, our chief object being to get ahead; the end continues to be worth from 60l. to 70l. per fm. The sump sinking in advance of this end at the 165 is in a large lode; the part we are carrying is worth 100l. per fm. We have three stopes working in the roof of this level, two of them are worth 50l., and one 140l. per fm. The 155 end driving north is worth about 50l. per fm.; we expect there is a richer lode ahead of us, according to the situation of the best stope, just referred to, in the 165. In the 145, owing to the ventilation being so imperfect, and in consequence the progress so slow, we have stopped driving northwards on the vein, and put the two forces of men to complete, as rapidly as possible, the cross-cut from the east to the west vein, and by which means a fresh current of air, I expect, will be established, sufficient to carry us up under Dumbell's ground. At Dumbell's the new ends at the 140, or bottom level of that portion of our workings, are now fairly started to drive north and south, but as yet the lode, though large, is not above the value of 20l. per fm.; it is a conspicuous fact that the main run of ore ground at this point is now all to the north of the shaft, which is only in accordance with all the dips of ore ground throughout our mines. The 125 end driving north is still looking well, and worth 160l. per fathom, but the lode in the sump, sinking from the 110, is not so good, now worth 100l. per fm., the richer ore ground having, we are assured, dipped from the sump northwards. The 110 end has not improved in the way I was led to expect a month ago; the present appearances are that the lode made a bend and shaped to go off altogether to the hanging or eastern side—in this, however, we are for the present disappointed—the lode in the end is worth 20l. per fm. In the 70 and 60, driving south of Dumbell's, the ends are now unproductive, having, it would appear, reached the southern end of the ore ground at these levels in which we have added to our discoveries, and I hope and expect will be further increased above the 60 southwards. In the 60 driving north we have a lode worth 80l. per fm., and the 50 (lately resumed, as noticed in my last report) has just now struck into a productive lode, worth 40l. per fm., with every prospect of further improving.—Glenroy: The improvement noticed in last report in the 25 fm. level driving north continues; the lode was recently intersected by a slide, and thrown a short distance to the east, in cutting into which we found it productive of rich stones of ore, which has now settled into a regular leader. Depth appears all that is wanted to add this a new and fresh mine to the company's property, and in this we are doing all in our power by sinking the engine-shaft (now 11 fms. below the 25) with all possible speed.

GREAT NORTH DOWNS.—Wm. Rich, Dec. 16: The men at Sleggan's shaft have been engaged fixing penthouse id the 84; this is now completed, and the sinking forced on as fast as possible. The character of the ground near the lode looks very congenial for making copper. The 84 end west is looking more promising, and yields good stones of ore. The 84 east is worth 6l. per fathom. The winze below the 74 east is worth 8l. per fathom. The winze below the 74 west is worth 15l. per fm. The stopes in the 74 west are worth 8l., 9l., and 11l. per fathom. The tin lode in the 48, west of King's, is not quite so good towards the bottom of the level; now worth 15l. per fathom. We have broken good stones of ore in the 84, driving west of King's; the lode in the end has a very kindly appearance. Two stopes in this level are worth 10l. per fathom each. We are obliged to suspend the sinking of Butler's shaft, on the north lode, on account of the water. As soon as the wet season is past we shall resume the operations. Since we have suspended sinking Butler's the number of men have been increased in the bottom levels, so as to urge on the driving as rapidly as possible. The lode in the 64 fm. level cross-cut south is worth 9l. per fathom for copper. The 75, east of Butler's, is worth 10l. per fathom. A stope in back of this level is worth 8l. per fathom. The stopes in the 64 east are worth 6l., 8l., 9l., and 12l. per fathom.

GREAT NORTH LAXEY.—R. Rowe, Dec. 15: In the engine-shaft we have during the last fortnight been sinking for a "fork;" this is completed. The shaftmen are now engaged in casing or sheathing the shaft down from the 96 to the 110, and in a fortnight more we expect to be able to draw by the machine from the bottom, or 110, and we then shall be in a fair way for driving out north and south on the course of the lode. The 96 fm. level end, driving north, now 15 fathoms from engine-shaft, has a lode of great promise; it continues to be 4 ft. wide, worth about 1 ton of lead per fathom, and its appearance to-day confirms most strongly my unvarying opinion, that depth will most certainly lead us to a good and permanent mine. The 84 fm. level end, now just under the old engine-shaft north, is also opening out a very promising lode, and in the driving of this level I am confident of making further, and better, discoveries; the lode at present is 2 ft. wide, worth 5 cwts. of lead per fathom, and the ground from this point is in whole to surface. Our stopes are looking about the same, and producing the usual quantity of ore. If am in hopes from the appearances of some of them to-day we shall have an increase of raisings for December.

GREAT RETALLACK.—G. R. Odgers, J. Harris, Dec. 12: The lode in the No. 1 shaft, sinking below the 30, is 18 in. wide, of quartz and friable spar, with good lead, worth about 5 cwts. per fm. The lode in the 30 south is about 1 ft. wide, and principally of quartz and spar, containing a little lead, but not to value. The lode in the 30 north is 18 in. wide, of friable spar and mundic, worth for lead 4 cwts. per fm.; in each of these places the lode has a most promising appearance. The lode in the 20, both north and south, is without any change since our last advise. The stopes above this level are yielding from 3 to 4 cwts. of lead per fathom. We have no alteration to report on the No. 2 lode.

— G. R. Odgers, J. Harris, Dec. 16: No. 1 Lode: The lode in the engine-shaft, sinking below the 30, is 2½ ft. wide, containing good stones of lead; to-day not enough to value, although of a very promising appearance. The lode in the 30, south from the shaft, is 15 in. wide, containing good lead, saving work. The lode in the 30 north is 18 in. wide, a good branch of lead, worth from 8 cwts. to ¼ ton of lead per fathom, and from its appearance we have a good opinion of its continuance. The lode in the 20 south is without any change. The stopes above this level are producing from 3 to 4 cwts. of lead to the fathom.—No. 2 Lode: The lode in the 40, south from the engine-shaft, is 2 ft. wide, principally white iron—a strong lode. The lode in the 40 north is 20 in. wide, of white iron and quartz; this level is getting into a better channel of killas, and hence we have a far better opinion of it. The lode in the winze sinking below the 30 north is 20 in. wide, of white iron and quartz, containing good lumps of silver-lead—saving work. We are glad to add that the mine on No. 1 lode is looking much more promising to-day than we have seen it for some time past.

GREAT SOUTH CHIVERTON.—J. Nancarrow, Dec. 12: The lode in the 50 west is altering, has a leader of flookan, is letting out more water, and is altogether more promising, and likely soon to get into lead. No alteration in the 50 east. The south lode is coming into the 40 west; it has a small leader of lead on the north wall, and is expected to improve, as it will soon form a junction with the north lode. The lode in the 40 east is rather small. The ground in the 20 east is unaltered, but we are pushing it on as fast as possible, and are making fair progress in cutting the plat in this level. Our prospects, on the whole, are better.

GREAT SOUTH TOLGUS.—John Daw, Dec. 16: Friday last was setting-day. In the 166 fathom level, and 47 fathoms west of Lyle's engine-shaft, we have set the sumpmen to drive a cross-cut south, to intersect the tin lode, at 9*l.* per fm. The 154, east of the No. 1 cross-cut, is suspended, and the men are put to sink a winze below the level; set to two men, at 4*l.* 10s. per fathom; the lode is worth 10*l.* per fathom. In the 154, west of No. 1 cross-cut, the lode is 4 ft. wide, worth 25*l.* per fathom; set to four men, at 7*l.* 10s. per fathom. About 3 fathoms behind the end we have put six men to take down the lode standing in the south side of the level, preparatory to sinking a winze. We have also set to drive the 154, east of No. 2 cross-cut, to communicate with the 154, driving west of No. 1 cross-cut; the lode is worth 20*l.* per fm.; set to four men, at 12*l.* per fm. In the 140 west the lode is 4 ft. wide, worth 6*l.* per fm.; set to four men, at 6*l.* per fm.

GREAT WHEAL BADDERN.—R. Pryor, H. Tregoning, Dec. 12: The ground in the 75 fathom cross-cut, west on the tin lode, at Hill Brothers engine-shaft, is intermixed throughout with small branches of spar, containing spots of tin, with a little mundic, and the lode about 5 feet wide, turning out some splendid stones of tin, looking promising. In the 75 fathom cross-cut, west on the silver-lead lode, the ground is without change to notice during the past week; the lode in the end is from 2 to 3 feet wide, containing mundic, flookan, spar, and silver-lead. We look for an improvement at this point shortly.

GWYDYR PARK.—W. Smyth, Dec. 15: Since the last general meeting we have sunk the shaft at Gwyn Llifon 4 fms. 2 in., during which the lode has been small and unproductive; it now looks a little more regular, and shows facets of lead ore: the ground is still hard and slow for progress. The present depth of the shaft under the 8 fm. level is 8 fms. 4 ft. 1 in., and we have about 4 fms. more to sink before communicating with the deep adit, which I expect will be accomplished in March, if the ground continues as it is at present. We have also driven the Gwydyr deep adit south 1 fm. 4 ft., when it was suspended, and the men removed to the Vuchesias deep adit, where they had driven 3 fms. up to the end of last month; the lode in the present end is about 18 in. wide, principally composed of shale, with a little spar, mundic, and blende, and nice stones of lead ore—a kindly end. We have also secured an old shaft on the adit through which we pull the stuff. I would advise to continue thi levels until we intersect Harker's lode, when I expect good results.

HARWOOD.—Wm. Vipond, Dec. 12: There is no change in the level at Scar Head. The level driving east at Trough is easier; this may be an indication that we are coming near Richardson's vein. We have had a little more ore the last two days in the end driving on Trough vein, and they have just cut something to-day looking like Richardson's vein; whether it will prove to be it or not I cannot say, but we shall soon prove it.

HERODSFOOT.—T. Trevillion, Dec. 17: The engine-shaft is down 10 fathoms under the 160. We intend to sink 5 fathoms more before we commence a cross-cut towards the lode. The lode in the 160 south is small, yielding occasional stones of lead. The lode in the 160 north is 1 foot wide, and at present poor. The lode in the 147 south is 2 feet wide, and worth for lead 9 cwts. per fathom. The lode in the 147 north is 2½ feet wide, and worth 8 cwts. of lead per fathom. The lode in the 137 south is 1½ foot wide, and worth 7 cwts. of lead per fathom. The lode in the 137, north from winze, is 18 inches wide, and worth 10 cwts. of lead per fathom. The lode in the 127 south is 1 foot wide, yielding 5 cwts. of lead per fathom. The stopes in the various levels are producing their usual quantity of lead. We sold our 60-ton parcel of lead on Saturday last, which fetched 26*l.* 13s. 6d. per ton.

HINGSTON DOWN CONSOLS.—James Richards, Dec. 16: In the 55, east of Morris's shaft, west of the eastern cross-cut, the lode is 5 ft. wide, and consists of capel, mundic, and ore, worth 2 tons, or 6*l.* per fathom. In Chenail's rise, in the back of the 55, east of Morris's shaft, and east of the eastern cross-cut, the lode is fully 4 ft. wide, and worth for the length carried (9 ft.) 2½ tons of ore, or 13*l.* per fathom. There is no other alteration.

LOVELL CONSOLS.—W. Chappell, Dec. 17: We are pushing on the driving of the 12 fm. level west to reach the dip of tin seen in bottom of adit, and from the character of the lode in the present end, we are daily expecting to cut the same. We are also clearing the adit east, where we are informed there is a good branch of tin gone down in bottom of level. The machinery and everything connected with it is in good working order.

MAUDLIN.—J. Tregay, Dec. 12: The lode in the bottom of the deep adit level will produce 1½ ton of copper ore per fathom; we cannot sink the winze here further at present in consequence of the water. Our present stamping-engine can be applied to pumping here very conveniently, and I believe that if we sink here we shall have a good lode very soon. The lode in the rise in back of deep adit level will produce 1 ton of copper ore per fathom; I expect this will continue nearly to surface, and if so we shall have an incline shaft, on the course of the lode, without much expense, the advantage of which will be great.

MINERA UNION.—W. T. Harris, Dec. 17: Low's Shaft: The 40 yard level cross-cut going east is same as last reported. We have commenced to open a little on the branches of lead recently discovered in the driving, which are yielding good stones of lead, and ground very promising.—Flue Shaft: The lode in bottom of the 40 yard level north is worth 10 cwts. of lead per fathom. The pitches in back of this level are worth 12 cwts. per fathom, and promising.—Brabner's Shaft: The ground in the 80 cross-cut, going east, consists of shale and chert, and easier for progress than for some time past. The pitch in back of this level south is worth 15 cwts. of lead per fathom.—Boundary Shaft: The ground in the 60 yard level north is as last reported, shale and limestone. The pitch in bottom of this level south is worth 10 cwts. of lead per fathom.

MOUNT PLEASANT.—William Wasley, Dec. 17: Last Saturday being our setting-day, I set Jenkins's shaftmen to sink one yard, at 7*l.* We have got through the very hard bed of chert since my last report, and are now in a hard bed of sandstone, which I hope we shall find not to be thick. I have set the level to drive west of the 120 yard level cross-cut, north of Jenkins's shaft, at 25s. per yard; the ground in the end is looking very favourable, but is not producing any ore. I have taken the men from the 90 yard level, at Jenkins's shaft, and put them to repair the boundary shaft. The men working near Bright's shaft have been engaged this week in timbering the level, &c., so that I have not set to them yet. Our lot of ore, which weighed off 7½ tons, brought 11*l.* 15s. per ton cash.

NEW CLIFFORD.—J. Michell, Dec. 17: Weston's shaft is being pushed down with all speed, and the cross-cut north is progressing well; the appearance of the strata at both points justifies our sanguine expectations as to the future of this mine. We are safe for a great and lasting course of copper ore.

NEW CROW HILL.—T. Trelease, A. Kent, Dec. 15: The following is our setting on Saturday last:—In the back of the 55 a pitch was set, to two men, two months, at 10*l.* per ton for lead; this pitch is poor at present. In the back of the 35 two pitches were set, for two months each—one to four men at 9*l.* per ton, the other to two men at 9*l.* 10s. per ton. We hope the working of these places may lead to some good discovery. Our shaftmen are engaged in repairing the whim-shaft and cutting ground for penthouse, which is necessary before we commence sinking.—Wheal Louisa: The engine-shaft was sunk 8 feet last month, and last week sollared over at the depth for a 75 fm. level. The cross-cut was driven south towards the lode 6 feet, and again set to six men, at 6*l.* per fathom, stented the month. The 60 east was driven last month 4 fathoms 3 ft. 8 in., and re-set to two men, at 4*l.* 4s. per fathom, stented the month; the lode in this end is again forming itself regular since it has left the cross-course, but unproductive at present. A pitch was set in the back of the 60, to three men, for one month, at 8*l.* 10s. per ton; this place has improved since last week.

NEW GREAT CONSOLS.—R. Pryor, R. Trathen, T. Bennetts, Dec. 15: In consequence of the heavy floods of rains causing the water to rise to the 64, with the engine working nine strokes per minute, we have not succeeded in completing the plunger-lift in the 74. No. 1 stope, in the back of the 64, is being worked by two men, and worth for copper and mundic 7*l.* per fathom. No. 2 stope, in the back of the same level, is being worked by two men, and worth for copper and mundic 10*l.* per fathom. No. 3 stope, in the back of this level, and worked by four men, is worth for copper and mundic 11*l.* per fathom. The stopes in the back of the 52 fm. level, stoping by three men, is worth for copper ore and mundic 9*l.* per fathom. A rise is being put up in the back of the 40 fm. level to hole to the bottoms below the 20 fm. level, and when communicated will give good ventilation, and greatly facilitate stoping the ends of the same, where the lode is worth for copper ore and mundic 15*l.* per fathom; this rise we expect to hole daily. The stopes in the back of the 30 fm. level, and stoped by two men, is worth for copper ore and mundic 7*l.* per fathom. The stope in the bottom of the 20 fm. level, which is worked by three men, is worth for copper and mundic 9*l.* per fathom. Two stopes are being worked in the back of this level, by four men, and worth on an average 8*l.* per fathom for copper and mundic.

NEW PEMBROKE.—F. Puckey, J. Puckey, Dec. 14: We are getting on as rapidly as possible with the sinking of the new engine-shaft, and hope to complete the same to the 30 in about a week from this time. In the 75, west of the great cross-course, we are getting into more settled ground, which is favourable for progress, and shall soon commence driving a cross-cut north to intersect the lode west of the cross-course. In the 75 end, driving east of the shaft, we have met with a small cross-course, which has disordered the lode, and the end is now full of branches, which contain a little tin. Since we have passed this cross-course the end is letting out more water, and is now draining the water from the winze which is partly sunk below the 60; this winze is now about 7 fms. in advance of the 75 end. Our stopes in back of the 75 are still producing good average work for tin. In No. 1 stope, west of the winze, the lode is 1½ feet wide, and worth 10*l.* per fm. In No. 2 stope, east of the winze, the lode has made a splice, but is still producing good work for tin, and worth 20*l.* per fm. In No. 3 stope the lode is 4 ft. wide, and worth 16*l.* per fm. In No. 4, or eastern stope, the lode is 2 ft. wide, and worth 14*l.* per fm. The ground in the 75 cross-cut, driving north to cut the north lode, is favourable for progress. It is very encouraging for all tin mines to see the tin standard has again to-day advanced 2s. per cwt., making a rise of 4s. per cwt. in the tin standard in the past week, or 2*l.* 10s. per ton on our tin ores.

NEW TRELEIGH.—S. Michell, Dec. 15: I have now come from underground and beg to say that the lode is looking pretty well in each of the ends at the 78, worth in the aggregate 4 tons of ore per fathom. The men are driving by the side of the lode in each end, and the lode will be again taken down the latter end of this week. Not much of the lode in the shaft taken down for some days past. The rock has again become more compact than it has been for some feet sinking; therefore we may expect an improvement in the lode shortly. The stopes in back of the 78 together are worth 3 tons of ore per fathom.

NEW WHEAL TOWAN.—R. Pryor, Dec. 16: The men have to-day commenced taking down the lode standing in the side of the adit level, and also in the winze sunk below the same, and have cut into it about 18 in., which produces some good yellow copper ore, but no south wall as yet; we hope to cut through the lode in two or three days, when I will send you a full report in time for the meeting.

NORTH CROFTY.—J. Vivian and Son, W. Thomas, jun., Dec. 17: The lode in the 170, west of Petherick's shaft, is worth 14*l.* per fathom. In the 196, west of ditto, the lode is worth 12*l.* per fathom. In the 208, west of ditto, the lode is improved, worth 6*l.* per fathom. In the winze sinking under the 183, east of Praed's shaft, the lode is worth 20*l.* per fathom, for the length of the winze, 10 feet. We are rising in the back of the 196, east of Praed's shaft, against the winze last alluded to, and are up 1 fathom, but have not yet reached the tin ground. There is no change elsewhere. We sold last week a parcel of tin, realising 1132*l.* 6s. 2d.

NORTH JANE.—James Rowe, Dec. 15: The lode in the engine-shaft, sinking below the 36, is 5 ft. wide, worth 10*l.* per fathom for tin, and 2*l.* per fathom for mundic. The lode has much improved in appearance during the last week. There are two very good walls, and some very kindly prian, which is rich for tin. This lode must surely make good in depth. The shaft is sinking by six men, at 17*l.* per fathom. There is very little water, which makes it less expensive for sinking. The lode in the 36 east is 3 ft. wide, containing saving work for tin. The lode is better than when reported last week, and the ground has improved for driving; I am very glad of this, as it will enable us to get to the cross-course sooner than we anticipated. I am very anxious to see the lode east of the cross-course.

NORTH RETALLACK.—G. R. Odgers, J. Harris, Dec. 16: The lode in the winze sinking below the 10, north from No. 1 boundary shaft, is 2 feet wide, of quartz and killas, containing good stones of lead ores: we like the appearance of this lode, and the ground in which it is embedded, very much indeed—in fact, it is in a very good channel of ground for expecting lead.

OKEL TOR.—John Rodda, Dec. 17: The lode in the 80 is composed of capel, spar, peach, mundic, and occasional stones of ore. The stope in the back of this level will yield 3 tons of ore per fathom. In the 80, west of the cross-cut, the lode is 4 feet wide, consisting of spar, white iron, mundic, and ore, and worth of the latter about 2 tons per fathom, and promising to improve. The lode in the 65, east of Gerry's cross-cut, is 8 ft. wide, and composed principally of capel, with branches of ore running through it; this end is suspended for the present, and the men put to sink a winze in the bottom of the level, where the lode is worth from 4 to 5 tons of ore per fathom. In this level, west of the cross-cut, the lode has been disordered by a flookan during the past fortnight; it is, however, now improving again, and is now worth about 2 tons of ore per fathom. Bates's stope, in the back of the same level, will yield 3 tons of ore per fathom. There is nothing new in the 65 fathom level cross-cut south from the footway winze. We have eight pitches working, which turn out, on the average, from 2 to 3 tons of ore per fathom.

PEDN-AN-DREA.—Wm. Tregay, J. Thomas, Dec. 12: On Tuesday afternoon we had a breakage of the main-rod of our pumping-engine, and the engine coming in doors, thus relieved of its load, cut down the spring bearers, but did no further damage. This prevented our pumping until it was repaired, which repairs were completed last night, by which time the water had risen to the 110. The engine is now working well, but the coming water is at present very heavy. While this engine was idle we were enabled to keep the stamping-engine at work rather more than half the time only, in consequence of the shortness of water for condensing. The progress made in the deep levels is small since last report. The lode in the 140 west is worth 16*l.* per fathom. The lode in the 130 west is worth 8*l.* per fathom. The lode in the 130 west rise is worth 6*l.* per fathom. The lode in the 120 fm. level west winze is worth 10*l.* per fathom. The lode in the 120 fm. level east end is worth 12*l.* per fathom. The lode in the 100 fathom level east rise produces a little tin, but not to value. The quality of tinstuff at the 68 fm. level is about the same, and we are enabled to get very large quantities.—Cobbler's: The lode in the 120 west produces occasional stones of tin. The stope in the bottom of this level is worth 20*l.* per fathom. The 90 fathom level cross-cut north appears to be near the lode, and is very wet; the ground is hard capel, very similar to capel which accompanies the lode in the upper levels.—North Mine: The lode in the 55 west is worth 25*l.* per fathom. We have cross-cut the lode in the 47 fathom level west about 3 ft. north of the level; in the north part of this there is a good leader of tin, worth about 15*l.* per fathom. There appears to be more lode still further north. The pitches in the upper levels are looking well, and producing their usual quantities of tinstuff

PENHALLS.—S. Bennetts, W. Higgins, Dec. 12: There has been no lode broken in either the 70 east or west during the month, the men having been partially engaged in fixing the remainder of the skip-road, cutting ground for shaft-rolls, &c. The ground in the 60 cross-cut south is much the same as it has been for progress, and no appearance of the downright lode as yet. In the 60 west the lode continues to produce low quality tinstuff, and maintains its size. The 55 east, on new lode, is worth 8*l.* per fm. In the 50 cross-cut north another small branch, 3 to 4 in. wide, containing tinstuff, has been just cut, and the ground about it looks as though a lode is near. The 45 east, on new lode, continues worth 6*l.* per fm. In the 44 east none of the Pink lode has been broken since last noticed. The ground in the 40 west, on Pink lode, is improved, and a little more tin making its appearance; from the character of the ground we think the cross-course is near at hand.—Pink Mine: The Shop shaft, below the 30, is down on a large gossan, which has heaved the lode, but to what extent we cannot say. The lode in the 30, west of this shaft, is large, and producing saving work, but not of much value. The stope above this level is worth 10*l.* per fm. In the 20 west end the lode is 5 ft. wide, and worth 10*l.* per fm. The 12 west is not as yet cleared to the end of ground.

PENHALE UNITED.—Richard Pryor, Henry Bennetts, Joseph Pryor, Dec. 16: Phillips's engine-shaft men are still engaged in cutting ground below the 90 fm. level for bearers and cistern; consequently, there has been no change to notice in the shaft. The lode in the 90, driving south of this shaft, is very much improved, being now 2½ ft. wide, worth fully 25 cwts. of lead per fathom, with every appearance of a further improvement. The branch referred to in our former reports, from which large quantities of lead have been returned in the level above, will shortly unite in this end, which is an important feature. The lode in the rise in the back of this level, and north of shaft, is worth 6 cwts. of lead per fathom. We have about 4 fms. more to rise to communicate with the level above, which will give good ventilation, and enable us to resume the driving of the 90 fm. level end north, towards Hall's shaft. The lode in the winze sinking below the 80, south of engine-shaft, is improved, worth fully 6 cwts. of lead per fathom. This winze is sunk about 5 fms. below the level, and will be communicatsd to the 90 in about three weeks time, which will lay open a valuable piece of ground.—Hall's Shaft: The pitwork is dropped 8 fms. below the 80, and we hope to have the shaft in fork to this point by Monday next. The lode in the 80 fm. level, driving north of this shaft, is looking a little better, and producing good stones of lead. No change to notice in any other part of the mine since our last report.

PENHALE WHEAL VOR.—W. H. Martin, Dec. 16: The engine-shaft men are sinking with all speed below the 94 without any hindrance. We have not as yet cut the lode in the 94 north cross-cut, but the ground is letting out more water.—Penhale Lode: The lode in Ritchie's shaft, sinking below the 60, is 15 in. wide, and produces a quantity of mundic, and good stones of tin; there are also several branches of mundic running through the country in the shaft. The lode in the 60 west is 18 in. wide, producing tinstuff for the stamps.

PERRAN SILVER-LEAD.—Matthew Wasley, Dec. 15: I measured the end driven on the cross-course on Saturday last, and found it to be 8 fms. 1 ft. off the lode; and although the ground has been favourable for driving, I found a further improvement in the end—a nice wall against the north side, and a nice soft flookan branch going forth, which induced me to get 6 feet further driven before commencing the shaft; this will, in all probability, be accomplished, and the shaft commenced, this week, and the ground being of such a favourable character, we anticipate good dispatch.

PRINCE OF WALES.—J. Gifford, W. Gifford, Dec. 17: In the 65 east we are taking down the capel, or south part of the lode; the north, or ore-bearing part, is still standing for near 3 fms. in length; as yet nothing has been done in this part since last taken down, when it was worth 25*l.* In the 65 west we are driving north on the western side of cross-course, to see if any more lode is standing north of the present end. In the 55 east the lode is 1½ ft. wide, principally gossan, with a little black ore intermixed, but not to value. On the 55 west the lode is 2½ ft. wide, composed of capel, quartz, and peach, with spots of copper ore and mundic intermixed, but not to value, also letting out much water. The south lode, in the 55 east, is 1½ ft. wide, carrying spots of copper ore and mundic, but not to value. In the south lode in the 45, west of cross-course, the lode is 1½ ft. wide, worth 7*l.* 10s. per fathom—a very promising end. On the south lode, in the 45 cross-cut south, we are not satisfied that we have all the lode; so far as seen the capel has yielded good stones of ore, but nothing regular. No other change to mention.

PRINCESS OF WALES.—Thomas Foote, George Rickard, Dec. 16: In consequence of the very heavy weather we have had the masons have not been able to make the progress we could wish with the boiler-house, &c. The engineers are getting on as fast as possible with the engine, and have all the heavy parts in their place. If we can have the weather favourable for about three weeks we hope to get the engine to work. All our carpenters' work is in a forward state, and everything that can be got on with is being done.

REDMOOR.—T. Taylor, Dec. 17: We are driving the 25 east on the branches intersected in the south cross-cut; they contain some good stones of tin, with spots of copper ore, but not to value. There is no change in the stopes or western ground; every place is flodded. We can do but very little at surface in building the ovens or dressing. I sold at Trethellan yesterday 120*l.* 13s. 10d. worth of tin.

ROARING WATER.—H. Thomas, Dec. 15: There is no particular change in the points of operations since I last wrote; everything appears very promising.

SOUTH CONDURROW.—J. Vivian and Son, W. Williams, Dec. 12: In the 93 south, on the cross-course, east of King's shaft, we have not yet met with anything worthy of notice. In the 82 south, west of King's shaft, we have not yet intersected the lode. In the 71, west of King's shaft, we have driven about 3½ fathoms south through the tin lode, which is of the same character as already reported on, and the south wall not yet reached. In the 61, west of King's shaft, we are still cross-cutting north, through the tin lode, and are meeting with more water. The stopes in the back of this level are much the same as they have been. In the 51, west of Vivian's shaft, the lode is producing about 1 ton of copper ore per fathom. There is nothing requiring notice in other parts of the mine.

SOUTH DARREN.—John Boundy, W. H. Boundy, Dec. 14: The lode in the 70 west is 2 ft. wide, producing good stones of lead and copper ore, with every indication of further improvement. The lode in the 60 west is at present small, containing a little lead and copper ore, but not sufficient to value. The lode in the 50 west is getting larger, with occasional stones of lead and copper ore, and is promising for improvement. The stopes are looking just the same as for some time past. There is nothing new to remark on in any other part of the mine. The machinery is in good condition.

SOUTH HERODSFOOT.—W. Goldsworthy, Dec. 17: We are making good progress in driving the cross-cut at the 100; the ground is of a very favourable character, and highly mineralised, the engine and pitwork are in good order but the water is very much increased by the late heavy rains.

SOUTH MERLLYN—(*Special Report*).—W. T. Harris, Dec. 11: After carefully examining this mining property, I beg to hand you my report thereon. The sett is situate about 1½ mile west from the town of Holywell; is surrounded by numerous valuable mines; the Holway mine is to the north-east, in close proximity to the boundary, and at present is returning from 60 to 70 tons of lead ore per month. The principal lode traverses the entire length of the sett; on it several shafts have been sunk, and a large quantity of lead returned by the old company to the depth of only 30 tms. The pulley shaft has been sunk 50 fms. on the course of the lode, which yielded good deposits of lead; but below the 30 little else has been done. Proper levels have been commenced in the 40 and 50, and driven about 10 fathoms; the lode is 3 ft. wide, containing good stones of lead, and very promising. The levels should be driven forward, more particularly the 40 south and 50 north; in so doing I have no doubt you will discover lead. The south shaft has been sunk 30 fms. on the course of the lode; it being out of repair I could not go down, but from information I received the shaft should be put in repair, and sunk another 10 fms., and good results will follow. There are no water charges, the mine being perfectly dry to the bottom. The ground is easy for exploring, therefore not expensive. These are advantages most mines do not possess. In conclusion, judging from the natural advantages and facilities this mine possesses, together with the encouraging prospects of the lodes, I have no doubt in a short time you will open up a very profitable mine.

— H. R. Harvey, Dec. 15: I have set the 40 to be extended southward on the course of the lode, which is 3 ft. wide, and very promising for improvement. The tribute pitches set in the south part of the mine will yield fair profits. I shall be able to report more fully next week.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Dec. 12: In the engine-shaft, sinking below the 30, we find granite coming in, and, therefore, expect the branches to get united, as we shall be under the elvan; the branches are composed of quartz, in which we find spots of yellow copper ore and mundic.

ST. JUST AMALGAMATED.—R. Pryor, W. White, R. Wearne, Dec. 14: In the 110, driving east of Saveall's engine-shaft, no lode has been taken down during the past week, consequently there is no change to notice. The lode in the 100, driving east of shaft, is worth 4*l.* per fm., and promising for improvement. The lode in the 100, driving west of shaft, is worth 4*l.* per fm. The lode in the 90, driving west, is a little disordered, and at present only worth 5*l.* per fathom.—Owl Lode: The lode in the 40, driving north of Reddipper shaft, is worth 4*l.* per fm. The lode in the 20, driving north, is worth 5*l.* per fm., with a good appearance. The lode in the 10, driving north, is worth 5*l.* per fathom. The lode in the 10, driving north on branch, is worth 6*l.* per fm. The lode in the winze sinking below the adit, on branch, is worth 5*l.* per fm. The lode in the 20, driving east of Reddipper shaft, is worth 6*l.* per fm. The lode in the 62, driving west on Pryor's lode, is worth 7*l.* per fm. No change to notice in any other part of the mine.

SUMMER HILL.—W. Wasley, Dec. 17: I have re-set to eight men to sink Wynne's shaft until the end of the month, at 80s. per yard (20s. less than before), and am glad to say good progress is being made. The ground and flat in the end, driving from Hale's shaft towards Wynne's shaft, is without any change to notice since last reported on. I am glad to say that we are making very good progress in driving the level on the new ore course west of the cross-cut north of Hale's shaft, where the flat and ground are looking very favourable for the production of ore, but not yielding any at present.

TAMAR VALLEY.—J. Goldsworthy, Dec. 17: The clearing of the adit level is being pushed on with all speed, which is considerably reducing the quantity of water we have to contend with. Our principal operations this week have been clearing the shaft, which is now down some fathoms below the 47. I am in hopes when this level is cleared (which has already been done for 30 fathoms) we shall find rich lead ground. The 37 north is cleared 15 fathoms. By present appearances we shall open up good tribute ground. We shall at once fix the plunger-lift in the 47 fm. level. We shall soon commence to cross-cut towards the Tamar Valley lode. We have broken some good lead this week. I am expecting to set several tribute pitches.

WESTMINSTER.—W. Kitto, Dec. 17: I have nothing very particular to tell you. In the 80 end west we have a very pretty lode, worth from 15 cwts. to 1 ton of ore per fathom, but as there is a great underlay you will at once understand that in driving we do not carry very much of the lode along with us. The east end in the 80 is not so good as the west, still the lode is strong and healthy, with blotches of ore throughout the end. In the 70 end we have a lode fully 5 feet wide, and although the stuff is very coarse it has all to be put through the washing-floors, as it contains fine solid lumps of lead. I am in hopes we shall soon get through that nasty disturbed ground in the 60, as it appears to be better defined. The continuous floods have greatly increased our water, still the men are at work, and I hope to get through the winter without working the old engine. The bucket-rod parted one day this week, which hindered us slightly, but everything is right again.

VAUGHAN.—Dec. 15: In the deep adit level eastward, we have intersected a kind of cross-course, principally composed of spar and carbonate of lime, which makes the ground a little easier for driving, which will be pushed forward with all speed.

WEST BASSET.—G. Lightly, Dec. 16: Grenville's Shaft: In the 164 west the lode is 4 feet wide, containing stones of ore. In the 154 east the lode is yielding 1 ton of ore per fathom. In the 154 west the lode contains stones of ore. In the the 144 east the lode is yielding 1 ton of ore per fathom. In the 144 west the lode is unproductive. In the 134 west the lode is yielding 1 ton of ore per fm.—Middle Lode: In the rise in the back of the 65 east the lode is worth 4*l.* per fm. for tin. In the 65, west of the cross-course, the lode is worth 5*l.* per fathom for tin.—Hambly's Lode: In the 75 west the lode contains tin in small quantities. In the winze in the bottom of the 65 west the lode is worth 4*l.* per fathom for tin. In the winze in the bottom of the 52 west the lode is producing saving work for tin.

WEST DRAKE WALLS.—T. Gregory, Dec. 16: The killas in the 40 fm. level cross-cut south continues of the same favourable character for driving. In the 40 fm. level cross-cut north a small branch of ore has been intersected, and the ground is of a good description both for progress and mineral.

WEST GODOLPHIN.—J. Vivian and Son, J. Pope, jun., Dec. 15: Hope Lode: In consequence of the late heavy rains we have had the water in the deepest and best parts of this part of the mine. In the 25, east of Paull's shaft, the lode is 1 ft. wide, composed of profitable tinstone, and presenting a good appearance. In driving this level west from the point of the horse, on the north part of the lode, the lode is 2 ft. wide, and worth 5*l.* per fathom; this is opening ground which will be stoped for about 17s. 6d. per fathom. There are two stopes in the back of the 25, east of Paull's shaft, each worth 6*l.* per fathom; and one stope in the back of the 15 is worth 2*l.* 10s. per fathom.—Caunter Lode: The pressure engine is working well, and in sinking Pressure shaft under the deep adit level the lode is 2 ft. wide, and worth 6*l.* per fathom. In the deep adit level, south-east from the Pressure shaft, the lode is composed of tinstone, which will pay. The tribute pitches in the back of the deep adit are yielding fair quantities of tinstuff.

WEST MARIA AND FORTESCUE CONSOLS.—William Skewis, J. Donnal, Dec. 16: The lode in the 60, east of Maria engine-shaft, still continues to be worth 25*l.* per fm. No. 1 stope, in back of the 60 fm. level stope, is worth 7*l.*, and No. 2 stope 10*l.* per fathom. The lode in the 50, east of the new shaft, is worth 8*l.* per fathom, and in No. 1 stope, in the back of this level, the lode is worth 12*l.*, and in No. 2 stope 18*l.* per fathom. Not much has been done in sinking the winze in the bottom of this level as yet, the men having been employed taking up the water, &c.; the lode so far as seen is worth 40*l.* per fathom for the length (12 feet). The lode in the 40, east of new shaft, is much improved, now worth 12*l.* per fathom, a very promising lode. No lode taken down in the stope in back of this level since last report.

WEST PRINCE OF WALES.—W. C. Cock, Dec. 15: We have began sinking the north engine-shaft, and I now hope we shall be able to proceed with it rather better than I anticipated. We have replaced the broken wind-bore in the south shaft by a new one, and are again in a fair way of sinking; the lode here at the present end is going down a little more perpendicular, and if it continues in the same direction it will go out of the shaft; I hope, however, that it will soon take its original course. I have stopped the 16 fm. level end west, on the south lode—seeing that its character does not improve in driving—to prove it at a greater depth, where I consider there will be greater chances of success.

WEST TOLGUS.—Dec. 16: We have been able to do but very little in the bottom of Taylor's engine-shaft for the last eight or nine days, in consequence of the late heavy rains. Taylor's engine has been, and is now, working from 8½ to 9 strokes per minute. We have now 2 fms. of water in Taylor's shaft, below the 95 fm. level; we have thus far managed to keep the 95 fm. levels dry, with the exception of three or four stems. On Monday last we put Richards's engine to work; it took us till Monday afternoon to balance the engine, and to adjust other little matters connected therewith; it is now working first-rate. We had about 17 fms. of water in Richards's shaft when the engine was set to work, which is now all drained, and the men are clearing up the shaft; we hope by to-morrow they will be able to commence sinking the shaft. Now the water is drained from Richards's shaft, it will take off some of the water from Taylor's engine, and we hope to be sinking Taylor's shaft again shortly; this shaft was deepened last month 1 fm. 5 ft.; the ground is favourable for sinking if we can keep the water out. The lode in the 95 fm. level east is looking a shade better than it was, now yielding 4 tons of ore per fathom, worth 20*l.* per fathom. In the rise over the back of the 95 east the lode is 4 ft. wide, producing 4 tons of ore per fathom. In the 95 west the lode is 6 ft. wide, and producing 6 tons of ore per fathom. We have two stopes over the back of the 95, working by twelve men, each worth 30*l.* per fathom. We have six men stripping down a piece of lode west of the cross-course at the 95, where the lode appears to have thrown itself abroad, as it came in contact with the cross-course from the north to the south wall; and for 3 fms. in length the lode, with a horse of killas in it 2 feet wide, is 13 ft. wide; this part of the lode has yielded 7 tons of ore per fathom, worth 30*l.* per fathom; we wanted to get the north wall, to put in a stull; the lode altogether in this place is worth 60*l.* per fathom. In the 85 west the lode is unproductive. The lode in the 85 east is 3 ft. wide, yielding 3½ tons of ore per fathom, worth 14*l.* per fathom. We have two stopes over the back of the 85, working by twelve men, worth 16*l.* per fathom each. The lode in the 75 fm. level west is 4 feet wide, producing good stones of ore—a very promising lode. The men from the 65 west have been engaged about other work since last report.

WEST WHEAL TREMAYNE.—S. Roberts, Dec. 15: The shaftmen are now engaged in sinking with all possible speed; the ground is favourable for sinking, and of a kindly nature for copper ore. We have not taken down any lode for the week, but it is looking well. In the 32 west the lode is 12 in. wide, with occasional stones of copper ore, and yielding a great deal of water. In the 20 west, on engine lode, there is no change to mention; the lode is still small. The tributers at present are getting wages. The new pitwork is working very well indeed.

WHEAL AGAR.—E. Rogers, Dec. 16: The lode in the 110 fm. level has not been taken down for the last 4 feet driving, and there is no change to notice in either of the shafts.

WHEAL BULLER.—James Inch, James Brown, Dec. 16: We have nothing new in the mine to report on since our last. Next Friday being our setting-day we will send you full report of the mine. The water is again in fork, and the machinery is working well.

WHEAL COURTENAY.—J. Gifford, Dec. 16: In the 20 west the lode is disordered by an elvan for the time being, but I hope from present appearances it will soon become more settled and productive. In the deep adit the lode is 4 ft. wide, principally composed of peach and capel, with spots of mundic and copper ore intermixed.—North and South Lode: In the 20 south the lode is squeezed up by a horse of elvan at the eastern side. The pitch in back of the 20 south still continues to yield its usual quantity of copper ore.

WHEAL CREBOR.—J. Gifford, Dec. 16: In the 120 east we are carrying about 2 ft. of the south part of the lode, which is composed of quartz and flookan, and letting out much water; we shall cut into the north part of the lode on Friday next. In the 120 west the lode is 2½ ft. wide, intermixed with quartz, mundic, and spots of ore, but not to value. No change in the 96 cross-cut south. The tribute pitches continue to yield the usual quantity of ore.

WHEAL KITTY (St. Agnes).—W. Polkinghorne, S. Davey, Dec. 12: No alteration has taken place in the 82, driving west of Holgate's shaft, since our last report, still worth for tin 12l. per fathom.—New Shaft, Pryor's Lode: Nothing worthy of remark has taken place in the sinking of this shaft during the week. In the 94, driving west of shaft, the lode is 4 feet wide, and worth for tin 25l. per fathom. In the 94, driving east of shaft, the lode is 4 ft. wide, and worth for tin 16l. per fathom. In the 82, driving west of shaft, the lode is worth for tin 13l. per fathom. In the 82, driving east of shaft, the lode is worth for tin 8l. per fathom. The lode in the rise in back of the 82, west of shaft, is worth for tin 13l. per fathom. In the 65, driving west of shaft, no lode has been taken up. We are pushing on the stoping of the ground mentioned in our last report, in the 82 fm. level on the caunter, where the lode is much the same in size and character as when last reported, and worth for tin 10l. per fathom. In the 44, driving east of cross-cut, north of Pryor's lode, the branch has improved a little during the week, and is yielding rich stones of tin.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Dec. 12: The lode in the 140, west from the new shaft, is 20 in. wide, producing good strong tin; we intend next week to sample a pile from this end, when you shall be advised of its value; this is a kindly lode, and the tin is stronger than any we have before seen below the 120. The lode at the 130 west is 2½ feet wide—stamping work. At the 120 west the lode is 18 in. wide, with some rich tin; here we are in the cross-course, and we expect when we get on the western side of it that we shall have a productive lode. There is no change in the rise above the 110 fm. level west. The lode in the 100 west is 3 feet wide, producing low stamping work. The lode in the 90 east is altogether 3 feet wide, with an excellent lode for tin in the back of the level, worth fully 18l. per fm.; this is a very promising lode. The men are getting on very well with the 90 fm. level cross-cut north, we have just intersected a branch, dipping north, of chlorite that contains a little tin with mundic, &c., which is letting out pretty much water. This is no mean feature for the lode that is before us. We are busy sampling our tinstone; the tributers are working spiritedly, and we anticipate selling a good parcel of tin on Dec. 30.

— G. R. Odgers, W. Bennetts, Dec. 17: The ground in the 90 fm. level cross-cut is letting out more water. All the other points are looking much the same as we advised on Saturday. We are busy sampling tinstone, and we hope to sell a good parcel on the 30th inst.

WHEAL IDA.—F. C. Harpur, Dec. 12: I have no particular change to inform you in the mine. We are pushing forward the operations as fast as we possibly can. The ground in the 45 fm. cross-cut is moderately easy for exploring, occasionally intersecting branches containing quartz, mundic, and silver-lead ore. Our machinery is all in good order.

WHEAL RUSSELL.—John Bray, Dec. 17: The lode in the adit level is worth 5 tons of copper ore per fathom.

WHEAL ASPARNON.—Wm. Tregay, Dec. 12: There is no change to notice. We are still stoping the back of the 30 fm. level north cross-cut.

WHEAL UNY.—S. Coade, M. Rogers, Dec. 12: The lode in the 140, east of engine-shaft, is worth 20l. per fm. The lode in the 130, east of engine-shaft, is worth 10l. per fm. The lode in the 120, east of engine-shaft, is worth 12l. per fm. The lode in the 110, east of engine-shaft, is worth 9l. per fm. The lode in the 100, east of engine-shaft, is worth 9l. per fm. The lode in the 130, west of incline shaft, is worth 5l. per fm. The lode in the 120, west of incline shaft, is worth 7l. per fathom. We have sold to-day to Bolitho and Company, 10 tons 1 cwt. 3 qrs. 7 lbs. of black tin, at 59l. 10s. per ton.

CHONTALES GOLD AND SILVER MINING COMPANY.—The directors have received advices from the mines under date Nov. 8. Mine cost for October, 2400l.; remittance, 450 ozs. of gold, the produce of 1299 tons of ore, of which the 12 head stamps pulverised 1157 tons and the arrastres 142 tons; the average yield of gold, 6 9-10ths dwts. per ton. The remittance would have been greater but for the low value ore sent to stamps during the last week. Scarcity of labour had prevented the completion of the tramway at San Bonita, over which the ore is to be conveyed to the new stamps. These stamps had, consequently, not yet commenced working. In Consuelo Mine, at a point very near the old tree, where so much gold was obtained at the commencement of the company's operations, a small patch of ground (6 cwts.) produced gold worth 20 ozs. per ton. The lode in the deep adit level is still 6 ft. wide—a fine lode, worth at present 3 dwts. per ton. In San Antonio Mine a discovery has been made in No. 3 level, yielding 1 oz. of gold to the ton. Mr. Belt expects to meet with improvements in his extended explorations. All the works at surface and underground are progressing, and as soon as the labourers return from their harvest the works will be greatly expedited. Dr. Simpson reports the health of the establishment to have been sickly as regards natives, but the Europeans good. Range of thermometer, 70° to 73° Fahr. The agent's report appears in another column of this day's Journal.

MINING IN BRAZIL—THE TAQUARIL COMPANY.—Mr. Henry Haymen has accepted the chairmanship, four new directors have been elected, and the operations at the mine are to be placed under the superintendence of Captain Thomas Treloar, as consulting engineer. As it seems probable that this property will at an early date attract considerable attention, it may not be out of course to advert to the fact that the estate, which adjoins the St. John del Rey, is about six miles in length, while the lodes, or auriferous formations, run longitudinally through it; and, according to the testimony of the late Mr. Joel Hitchins, the property possesses two rich parallel lodes, within 6 ft. of each other. Only one lode was very imperfectly developed at the last working, but Capt. W. Lanyon, who worked for three years in the mine, affirms "that hundreds of pounds of gold were taken out from the bottom of the shaft." Capt. Lanyon says—"I have myself taken out over three arobas of gold, or (say) 100 lbs., in so small a space as from 10 to 12 feet of lode." Captain Pengilly, who was for 13 years connected with the St. John del Rey, and still resides upon the property, states that, notwithstanding the value of the bunch or vein of gold gone down in the bottom of the lower level, the late workers could not follow it, in consequence of the machinery, a little horse-engine, not being of sufficient power to drain the mine. Under these circumstances, the general report by Capt. Thomas Treloar is awaited with interest.

SWEDISH SULPHUR ORE COMPANY.—The first general meeting of this company has afforded the shareholders some substantial evidence of what may be expected hereafter—an interim dividend of 7½ per cent. per annum having been declared, and a new prospectus for the placing of the remaining shares having been issued. Several shipments of ore have already been made and sold, upwards of 600 tons of first quality and 250 tons of second quality ore now remaining upon the mines ready for shipment. Mr. W. A. Browne, the secretary, was favourably impressed by his visit to the mines. Arrangements have been made for the use of a good wharf at Stockholm (with convenience for storing several tons of ore) at a rental of only 5l. per year. In addition to the original lease, for the working of which the company was formed, eight new mining concessions have been obtained contiguous thereto, at a very small cost, thus more than doubling the extent of the original company. The present total expenditure is about 80l. per month, including management, and 22 men are at work; an additional 40l. per month would permit 25 more men to be employed and double the amount of work being done. The prospectus will be found in another column.

At the Statistical Society of London meeting, on Tuesday, Dr. Mann read a paper "On the Statistics of Natal," and Mr. Charles H. Fielder read a paper "On the Rise, Progress, and Future Prospects of Tea Cultivation in British India."

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*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—South Wales Institute of Engineers: report of meeting, papers read, and discussion thereon—Manufacture of White Lead Direct from the Ore—Rock-Boring Machines—Royal School of Mines: Mr. Warington Smyth's Lectures (*continued*)—Geological Society of London—Elements of Modern Chemistry—Post Office London Directory—Manufacture of Watches and—Clocks—Extracting Gold from Sulphurets—Nevada Silver Mines, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, DEC. 18, 1868.

COPPER.	£	s.	d.	£	s.	d.
Best selected..p. ton	78	0	0-	79	0	0
Tough cake and tile	76	0	0-	77	0	0
Sheathing & sheets.	80	0	0-	81	0	0
Bolts	78	0	0-	—		
Bottoms	81	0	0-	—		
Old (Exchange)	64	0	0-	65	0	0
Burra Burra	80	0	0-	—		
Wire.....per lb.	0	1	0	- 0	1	0½
Tubes	0	0	11½	- 1	0	

BRASS.	Per lb.
Sheets .....per lb.	8½d.-9d.
Wire ..... „	8d.- —
Tubes ..... „	10½d.-11d.
Yellow Metal Sheath.p. lb.	6¾d.-7¼d.
Sheets ..... „	6¾d.-

SPELTER.	Per ton.					
Foreign on the spot	£20	10	0-	—		
„ to arrive..	20	10	0-	20	12	6

ZINC.						
In sheets	£25	0	0-	26	0	0

TIN.			
English blocks	107	0	0
Do., bars (in barrels)	108	0	0
Do., refined.....	111	0	0
Banca	108	0	0
Straits	£106	10	0-107 0 0

TIN-PLATES.*	Per box.					
IC Charcoal, 1st qua.	1	6	0-	1	8	0
IX Ditto, 1st quality	1	12	0-	1	14	0
IC Ditto, 2d quality..	1	5	0-	1	6	0
IX Ditto, 2d quality..	1	11	0-	1	12	0
IC Coke.....	1	2	6-	1	3	0
IX Ditto	1	8	6-	1	9	0
Canada plates, p.ton..	13	10	0-	—		
Ditto, at works	12	10	0-	—		

* At the works, 1s. to 1s. 6d. per box less.

IRON.	Per ton.					
Bars Welsh, in London	6	10	0-	6	15	0
Ditto, to arrive	6	10	0-	6	12	6
Nail rods	7	0	0-	7	2	6
„ Staffd. in London	7	12	6-	8	10	0
Bars ditto	7	10	0-	9	10	0
Hoops ditto	8	2	6-	9	15	0
Sheets, single.....	9	2	6-11		0	0
Pig No. 1, in Wales ..	3	15	0-	4	5	0
Refined metal, ditto..	4	0	0-	5	0	0
Bars, common ditto..	6	0	0-	—		
Do. mrch. Tyne or Tees	6	10	0-	—		
Do., railway, in Wales	6	0	0-	—		
Do., Swed. in London.	10	0	0-10	5	0	
To arrive	10	5	0-	—		
Pig, No. 1, in Clyde ..	2	14	0-	2	19	0
Do. f.o.b. Tyne or Tees	2	9	6-	—		
Do. Nos. 3,4, f.o.b. do.	2	6	6-	2	7	0
Railway chairs	5	10	0-	5	15	0
„ spikes	11	0	0-12	0	0	
Indian Charcoal Pigs, in London, p. ton..	7	0	0-	7	10	0

STEEL.	Per ton.					
Swed., in kegs (rolled)..	—		—	—		
„ (hammered) ..	15	0	0-15	10	0	
Ditto, in faggots	16	0	0-	—		
English, spring	17	0	0-23	0	0	

QUICKSILVER (p. bottle)	6	17	0-	—

LEAD.	Per ton.					
English Pig, com.....	19	0	0-	—		
Ditto, LB.....	19	5	0-19	7	6	
Ditto, WB	21	0	0-	—		
Ditto, sheet.....	20	0	0-	—		
Ditto, red lead	21	0	0-	—		
Ditto, white	27	0	0-30	0	0	
Ditto, patent shot....	22	0	0-22	10	6	
Spanish.....	18	5	0-18	7	0	

REMARKS.—The Metal Market has continued to progress favourably during the week, and the improvement already noticed has been well maintained. The amount of business transacted has been considerable, and there seems every prospect of increased activity. Prices also have generally become firmer, and in some cases still further advances have taken place, with every probability of increased rates ruling ere long. Confidence, which had been so long absent from the market, is now becoming established, and this is evinced by the return of speculative operations in the market, several of which have already occurred, and these give an impetus to the trade which is very satisfactory, and cause a stir in business, which results in a considerable increase of activity; and from the present condition of the market, and the revival which has arisen, there is not much question that these speculative operations will result in a very profitable manner, as prices are nearly sure to advance very much during the spring of next year, at which period it almost invariably happens that the market is in a very active condition. The rupture of diplomatic relations between Greece and Turkey will not, we trust, lead to any very serious result, although intelligence has been received that actual hostilities have commenced, as the great Powers appear to be united in recommending Greece to respect international law, and to both Powers to act with moderation and wisdom towards each other. It is to be hoped that this advice will have a satisfactory result, as the contrary might, possibly, lead to troubles in that quarter, as has been the case before. It would be very unfortunate should anything arise to disturb the present peaceful aspect of Europe, which would be sure to hinder the improved aspect of commercial affairs, and retard the return to those prosperous times, which appear to be dawning upon us.

COPPER.—There has been a decidedly forward movement in the market for this metal during the week. The old combination of the smelters has been re-established, and this will have a tendency to make prices much firmer and more uniform. A considerable business has been done in tough ingot at 76l., and it is now questionable whether it can be bought under 77l. About 1000 tons of Chili bars have been sold at 70l., and there is a better enquiry for Australian.

IRON.—In Staffordshire orders continue to come in rather slowly for manufactured iron, and the books of the makers being now pretty clear, some of them only keep their works in partial operation. Merchants appear to have replenished their stocks, and are now apparently disposed to wait until the turn of the year before giving out fresh orders. In Welsh the trade, as is usually the case at the end of the quarter, is rather quieter, both buyers and sellers avoiding heavy engagements until stocks have been taken. The American demand keeps tolerably good, and out of a total of 10,702 tons exported last month the markets of the United States have taken 5645 tons. British America is expected to require considerable supplies of railway iron in the course of the next few months. Business on continental account has undergone no change, and until the new year it is not expected that buyers will enter into large transactions. The adoption of a less restrictive commercial system in Spain has induced a few extra shipments to that country. In Swedish iron the enquiry is at present very limited. In Scotch pig-iron there has been very little animation in the market during the week, and prices have fluctuated very little, the last price received from Glasgow having been 53s. 7½d. cash.

LEAD.—The demand at present is not very active, but still prices remain firm at the quotations.

TIN.—On Monday the smelters of English announced another advance, of 2l. per ton, making present prices 107l. for blocks, 108l. for bars, and 111l. for refined. In Straits the market has continued to improve, and business has been done at increased rates, prices advancing first to 105l. cash, then to 105l. 10s., afterwards to 106l., and finally to 106l. 10s. cash, and 107l. for arrival. Banca has also advanced, and sales have been effected at 105l. 10s. and 106l. 10s., the present quotation being 108l. The market generally looks very buoyant, and further advances are very likely to occur.

SPELTER.—The market has not been very active, although rather more business has been done. The price on the spot still remains firm, at 20l. 10s.

TIN-PLATES are selling with tolerable freedom, and the reports received of the gradual reduction of stocks in New York are fully confirmed. STEEL and QUICKSILVER in moderate request only.

THE COPPER TRADE.—Messrs. Pitcairn-Campbell and Co. (Liverpool, Dec. 15)—The market has been decidedly steadier during the fortnight, and there are further indications of improvement. Chili bars have moved off pretty freely at 69l. 10s. to 70l., and we close firmly at the latter quotations. English copper is also decidedly stronger, and less irregularity may, we think, be looked for in the quotations. Quotations for Chili bars, 70l.; ores and regulus, 14s. to 14s. 3d.; ingots, 74l. to 75l.; Barilla, 15s. Business transacted during the fortnight comprises on the spot here, 680 tons bars, at 69l. to 70l.; 168 tons ingots, at 71l. 15s. to 74l.; 636 tons regulus and 90 tons ore, at 14s. 1½d. To arrive here, 375 tons bars, at 69l. 15s. to 70l. 5s. On the spot, Swansea, 150 tons bars, at 69l. 5s. to 69l. 10s.; 115 tons ingots, at 74l. 10s.; 200 tons ore, at 14s. 1½d.; and 1000 tons Australian ore, at 14s. to 14s. 1½d. At the Swansea ticketing 1896 tons ore sold, average price 13s. 10d., average produce 16 per cent. The arrivals here during the fortnight from West Coast, S.A., have been—Crusader, from Colon, 13 tons bars, 70 tons Barilla (in transit); San Luis, from Caldera, 180 tons bars. At Swansea, Alpha, from Caldera, 378 tons ores, 190 tons regulus, 24 tons bars; Antonio Vinent, from Tongoy, 641 tons regulus; Herradura, from Taltal, 200 tons ores, 543 tons regulus; Acacia, from Guayacan, 456 tons bars, 164 tons ingots; Emily Waters, from Cobija, 292 tons ores, 406 tons regulus; Pacific, from Huasco, 130 tons ore, 168 tons regulus, 250 tons bars. Stocks of copper (Chilian and Bolivian) in first and second hands, likely to be available are—

	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	1125	650	7186	962	269
Swansea	2334	3855	1502	41	222
Total	3459	4505	8688	1003	491

Representing about 13,700 tons of fine copper, against 8900 tons Dec. 15, 1867; 8550 tons Dec. 15, 1866; and 9380 Dec. 15, 1865.

The Board of Trade returns show the following exports of copper for the ten months ending October in the following years:—

	1868.	1867.	1866.
Manufactured copper .....Tons	22,684	22,291	18,299
Unmanufactured	6,830	7,408	4,938
Foreign	17,524	11,353	11,175
Total tons	47,038	41,052	34,412

Messrs. Vivian, Younger, and Bond (Dec. 18).—The market has been very animated, and considerable quantities of raw copper of all kinds have been taken off, in spite of the somewhat full charters of produce advised from the West Coast. The telegrams received have somewhat differed, but the quantities may be put down for the month between the middle of October and the middle of November as 3000 tons of bars and ingots and 1500 tons fine in regulus and ores. Nevertheless, the transactions of the week embrace nearly 2000 tons of bars and ingots—namely, 300 tons good brands bar spot, and 1000 tons Lota and good brands, principally the former (for arrival or forward delivery), the whole at 70l.; also about 450 tons Lota ingots at 74l., and 130 tons Urmenita ingots at 74l. 10s. About 1200 tons of regulus and 600 tons of ore have been sold at 14s. 3d. per unit. The English smelters having again associated themselves together, fixing a uniform price for tough copper of 76l. and best selected at 78l., has given a firm tone to the market, and consumers have taken off large quantities at these prices, the demand still continuing, so that some of the smelters even ask higher prices that those above named. Fine foreign has commanded a ready sale at 79l. 10s. cash both for Burra and Wallaroo, high prices being now demanded. The market, on the whole, closes very firm, with an upward tendency. The Cornish standard has advanced 30s.

Messrs. James and Shakspeare:—On the 14th December the Chili mail was delivered, confirming the charters as mentioned in our last, but giving also 260 tons of bars for Havre, raising the total quantity for the second half of October to about 2390 tons. The following day, telegrams were received giving the quantities for the first half of November at 1360 tons of bars and 700 tons of copper in ore and regulus, other messages giving a further 650 tons of bars for France; but it is in some quarters supposed that the metal in ore and regulus is destined for America. Large sales have been reported during the week, amounting to about 1800 tons bars and ingots, of which in bars 500 tons (good brands) at 70l., 200 tons Urmenita at 69l. 5s. to 70l., according to prompt; 600 tons Lota, at 70l., distant arrival; and in ingots, 450 tons Lota, at 73l., distant arrival, and a small quantity of Urmenita from second hands at 75l. per ton. In Australian produce about 200 tons Wallaroo sold at 79l. 5s. and 79l. 10s., together with a moderate amount of Burra at the latter figure. English raw sorts have been in very good demand, the chief smelters having again constituted themselves into an association, fixing their prices at the highest given in our list. Birmingham has taken tough freely, at 75l. to 76l. per ton, according to brand, and the consumers there seem rather anxious to contract at present rates for forward deliveries. Two cargoes of regulus for Liverpool have been sold at 14s. 3d. per unit.

THE MINING SHARE MARKET has been rather more active this week, with another rise of 2l. per ton in tin, and an advance in the standard for copper of 1l. 2s. per ton. The shares most dealt in have been East Caradon, Drake Walls, Chiverton, Chiverton Moor, Chiverton Valley, East Grenville, Grenville, Great Vor, Marke Valley, North Treskerby, Providence Mines, Prince of Wales, South Condurrow, West Frances, West Seton, Wheal Seton, Uny, &c. West Chiverton, 59 to 61; Burgess's shaft, sinking below the 100, is worth 60l. per fathom. The 120, west of Hawkes's cross-cut, is worth 30l. per fathom for the part being carried. East Caradon shares have advanced this week to 8¼, and leave off 7⅞ to 7⅞. The 80 west, on Child's lode, is worth 20l. per fathom; the 70 east, 10l. per fathom; the 70 west, 15l. per fathom. The ends in the mine are worth in the aggregate this week 65l. per fathom. Bedford United, 35s. to 40s.; Botallack, 175 to 200. Devon Great Consols, 310 to 320; the sale of ores on Thursday (1665 tons) realised 7371l., or 900l. more than the last monthly sale of 1683 tons, which brought in November 6470l. Carn Brea, 20 to 22½; Chiverton Moor, 6 to 6¼; Chiverton, 5⅞ to 6¼; Chiverton Valley, 3 to 3¼; Cook's Kitchen, 12½ to 13½; Drake Walls, 17s. to 19s.; East Basset, 8 to 9; East Carn Brea, 8s. to 10s.; East Lovell, 8½ to 9; Frank Mills, 3 to 3¼; Frontino and Bolivia, 8s. to 10s.; Great Laxey, 20 to 21.

Prince of Wales shares have been very flat, and declined to 25s., leaving off 28s. to 30s.; the falling off in the 65 west last week, and which the agents look upon as temporary, seems to have caused quite a panic on Thursday. The 65 east is driven up to the winze, and is now about 20 fms. *behind* where the lode in the level above was worth from 80l. to 100l. per fathom. When the level was last seen in the 65 it was worth 25l. per fathom. The ore on Thursday realised, with carriage, 635l. Great Wheal Vor, 11½ to 12½; Herodsfoot, 43 to 45. East Grenville, 3¼ to 3½; the 85 east is worth 1½ ton per fathom. The lode in the 75 east is 20 in. wide, worth fully 1½ ton. The 55 is worth 1½ ton. The lode in rise is worth 2½ to 3 tons. The 45 is worth 1 ton. The 110 has improved to 1 ton of ore per fathom. Marke Valley, 9 to 9¼; New Lovell, 32s. 6d. to 35s.; North Crofty, 25s. to 30s.; North Roskear, 10 to 11. North Treskerby shares have advanced to 10s., 12s. Prosper United, 15s. to 20s. (call of 10s. per share paid). Providence Mines, 32½ to 35; Rosewall Hill and Ransom United, 12s. 6d. to 17s. 6d. South Carn Brea, ½ to ¾; we stated some weeks ago that an influential local company was about to be formed for working this sett. All its machinery is intact, and it is to be charged to the company at a fair valuation, without one sixpence premium, or anything whatever to the promoters. With tin at 42l. per ton, the mine during the last six months' working, in 1866, only made a loss of 6l. At 60l. per ton, it is expected profits may be realised.

Wheal Grenville shares have been firm, and a good business done, at 31s. to 33s.; the advance in tin will materially improve the prospects here, while an important point, the cross-cut towards South Condurrow lode, is watched with some interest. South Condurrow, 17s. to 19s.; Stray Park, 4½ to 5½; Tincroft, 15½ to 16½; West Caradon, 3 to 4; West Drake Walls, 6s. to 8s.; West Frances, 40 to 42½; West Great Work, 2½ to 2¾; Wheal Basset, 60 to 65. Great North Laxey, ¼ to ⅜; the 96 end, now 15 fms. from engine-shaft, is improving, now 4 ft. wide, worth 1 ton per fm., and the agent states its appearance confirms most strongly his unvarying opinion that depth will most certainly lead to a good and permanent mine; the shaft is now down to the 110. West Seton, 185 to 190; at the meeting, a dividend of 6l. per share was declared. Wheal Crebor, 5s. to 7s. 6d.; the 120 east is nearing the ore ground gone through in the level above, and an improvement may be looked for. At Gonamena meeting the accounts showed a balance of 91l. 7s. 1d. in favour of adventurers, and a call of 1s. 6d. per share was made; the dispute with West Caradon, for ore said to have been raised in their sett by error, was settled by the payment of 200l. Great Western, 2 to 2½; we understand the shares are being fast taken up, and the points of operation in the mine are worth in the aggregate 105l. to 110l. per fm. Wheal Kitty (St. Agnes), 3½ to 4; Wheal Mary Ann, 20 to 24; Wheal Trelawny, 6½ to 7½, call paid; Wheal Uny, 3¾ to 4.

Chontales, 2½ to 2¾; the remittance by the packet for the month of October is 450 ozs. of gold. The estimate of Mr. Belt for that month, as published in October last, was 500 ozs. (1500l.), at a cost of 2800l. The present remittance, it is explained, would have been greater, but for the low value ore sent to the stamps during the last week. The average yield of gold in the 1299 tons of stuff crushed, to produce this 450 ozs., was a little over 6 dwts. Scarcity of labour had prevented the completion of the tramway at San Benito, over which the ore is to be conveyed to the new stamps, consequently these stamps had not commenced working. In Consuelo, being near the points where so much gold was obtained at the commencement of the company's operations, a small patch of ground produced gold worth 20 ozs. to the ton. The lode in the deep adit is worth 3 dwts. per ton. In San Antonio a discovery has been made, worth 6 ozs. per ton. The health of the establishment is good as regards Europeans, but the natives have been sickly. Don Pedro, 3¾ to 4; Yudanamutana, 2 to 2¼; Great Retallack, 2 to 2½.

The Market for Mine Shares on the Stock Exchange has been moderately active during the week, Brazilian descriptions attracting chief attention. Taquaril shares have been largely dealt in; this mine is in the jacotinga formation, and the lode of a similar character to Don Pedro. From very shallow working, and with a horse-whim, a large amount of gold was raised about a quarter of a century ago. The prosecution of the workings by efficient machinery is now being carried out by the present company. Capt. Treloar was known to have a very high opinion of the property, and, doubtless on his recommendation, Mr. Haymen and the Don Pedro directors have been induced to undertake the management; price of shares, 1-16th to 3-16ths prem. Don Pedro shares have fluctuated between 3¼, 3½, and 3, and close 3 to 3¼ prem.; Anglo-Brazilian, 1-16th dis. to par; Rossa Grande, 7-16ths to 9-16ths prem. Chontales fell to 2⅛, 2⅜, but they have subsequently rallied to 2¼, 2½. The return for the month was about the expected average. Pestarena, 1½ to 1¾ per share. Frontino shares have been steady all the week, closing 8s. to 10s. Yudanamutana, 2 to 2¼. Del Reys continue to decline, and

are last quoted 14¾ to 15¼. The half-yearly accounts have been sent out. There has been a better demand for British mines. The great rise in the price of tin, and the improving aspects of the market for copper and lead, have given a considerable impetus. Devon Great Consols sale of ores, Dec. 17—1665 tons of 6¾ produce—realised about 7371*l.*=4*l.* 8s. 6d. per 21 cwts., or 13s. 1¼d. per unit. Metal in the ores, 105 tons=70*l.* 4s. per ton, considerably better than the general average of the whole sale. Several deceased accounts have lately been sold out, which had the effect of depressing the market, following on the low price of copper ore, and at one time shares fell as low as 300, now they have rallied to 320, 330, and the prospects of the mine are considered good. Great Laxey shares are more offered. at 19½ to 20; Great Vor shares are firm at 11½ to 12. Chiverton, 6 to 6¼; 30 fathoms of ground has been driven through, worth from 5 cwts. to 3 tons per fathom. West Chiverton, 60 to 61; the report is very favourable. Prince of Wales, 28s. to 30s.; Glan Alun, 12s. 6d. to 13s. 6d., and in demand. The prospectus of the Great Western Mines has this week been issued, in 6000 shares of 2*l.* each, and it is said 4000 shares have already been applied for, and bids fair for success.

IRISH MINE SHARE MARKET.—We should describe the last few days' business in mining securities as very dull, had it not been for some unusual and heavy fluctuations in the shares of the Mining Company of Ireland, which closed last week, after our publication, with a fall of 5s. from our last quoted price of 12*l.* 5s. (7*l.* paid). On Monday, Tuesday, and Wednesday they went gradually further down, the lowest point arrived at having been officially marked at 11*l.*12s.6d., or 12s. 6d. under last week's reported price. From this there is this day (Thursday) a sudden advance of 17s. 6d., or to 12*l.* 10s. per share, with every appearance of, at least, a continuance of the present improvement. An advance in the standard for copper ores, which, with the important copper mines of Knockmahon, always considerably affects the interests of this company, and the customary influx of buyers when shares have gone back to a low figure, together with some encouraging rumours as to the company's prospects with regard to the Berehaven Copper Mine question, have combined, and may do so still further, to enhance the market value of the shares. The shares of the Wicklow Copper Mining Company have also been firm, at a rise of 2s. 6d., or 10*l.* 10s. per share (2*l.* 10s. paid). Connorree shares have been in demand throughout this week at the previous price of 4s. Other mine and quarry shares have not been dealt in.

The SOUTH CARN BREA MINE is about to be re-worked by a cost-book company, divided into 5000 shares, upon which a call of 5s. per share is to be made at the first meeting. It is anticipated that 20s. per share will bring the mine into a profitable state. The mine was suspended in June, 1866, when tin was 42*l.* 10s. per ton, yet the loss on the previous six months' working was only 6*l.* At the present price (60*l.* per ton) there would have been a profit of 300*l.* The only payment to be made for the transfer of the property is the value (each party choosing a valuer) of the machinery and plant, which have remained undisturbed on the mine. There is everything necessary for extensive working. The property has been favourably reported upon by Capts. John Daw and Son, Isaac Richards (of Devon Great Consols), and Edwin Hosking. Capts. Daw and Son remark that the mine is in the midst of the best in the county.

As nearly the whole of the shares in the GREAT WESTERN MINING COMPANY have been subscribed for, it is expected that a notice will be issued in a few days, closing the list for applications.

At the Truro Ticketing, on Thursday, 3038 tons of ore were sold, realising 12,261*l.* 17s. The particulars of the sale were:—Average standard, 104*l.* 11s.; average produce, 6¼; average price per ton, 4*l.* 0s. 6d.; quantity of fine copper, 197 tons 4 cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Nov. 19 ..	3637	£106 7 0	6½	£3 14 0	12s. 2½d....	£61 0 0
„ 26 ..	2587	97 6 0	8	5 1 0	12 6½	62 13 0
Dec. 3 ..	2837	102 1 0	6½	3 17 6	11 11	59 15 0
„ 10 ..	1703	103 3 0	6½	3 11 0	11 7½	58 2 6
„ 17 ..	3038	104 11 0	6½	4 0 6	12 5	62 4 0

Compared with last week's sale, the advance has been in the standard 1*l.* 2s., and in the price per ton of ore about 1s. 6d. Compared with the corresponding sale of last month, the standard has been about stationary.

The Standards of Tin Ore and Prices of Metal were advanced on Monday, and are now as follows:—Ores: Common, 97s.; superior common, 98s.; fine, 99s.; superior fine, 101s.—Metal: Common, 107s.; refined, 111s.

At Dolcoath Mine meeting, on Monday, the accounts for September and October showed a credit balance of 2864*l.* 13s. 10d. The profit on the two months' working was 2511*l.* 17s. 8d. A dividend of 2506*l.* (7*l.* per share) was declared, and 358*l.* 13s. 10d. carried to the credit of next account. Capts. Thomas, Provis, Tonkin, and Bawden reported upon the various points of operation: their report will be found among the Mining Correspondence.

At West Wheal Seton meeting, on Tuesday, the accounts showed a profit on the two months of 2404*l.* A dividend of 2400*l.* (6*l.* per share) was declared, carrying forward a credit balance of 1322*l.* The report is an exceedingly good one. At about the 120 the stopes are exceedingly productive, turning out 67½ tons per fathom. Mr. Dœring attended the meeting, and explained the working of his boring machines, and the conditions on which the adventurers could avail themselves of his patent. The adventurers, however, deferred the consideration of the subject, as they considered the conditions were too onerous for them to entertain for the present.

At the Great Laxey Mining Company meeting, on Dec. 12, the directors declared the usual quarterly dividend, of 10s. per share.

At the New Devon Consols Copper Mining Company meeting, on Thursday (Col. T. L. Jameson in the chair), the report of the directors stated that it was a wise decision on the part of the shareholders to authorise the directors to secure Trewollack Mine; but as a further payment on account of the purchase money is nearly due, the directors have made a call of 1*l.* per share. The report, together with that of Capt. J. Hancock, was received and adopted. The retiring directors were re-elected.

At Sortridge Consols Mine special meeting, on Dec. 8 (Mr. W. A. Thomas in the chair), it was resolved to stop the further prosecution of the mine, to dispose of the machinery and materials, and wind-up the affairs of the company at the earliest practicable period.

At the New Bampfylde Copper Mining Company meeting, on Wednesday (Mr. Charles Hand in the chair), the Chairman said that when the statements of account and reports were forwarded to the shareholders, it seemed that their business would simply be to take the preliminary steps for winding-up the company; but he had just received a very liberal proposal from Lord Poltimore—to relinquish all claims to royalties from Lady day, 1868, to Lady day, 1870, and to reduce the dead rent to 10*l.* per year during that period; the usual rent of 100*l.*, and royalties, if any, recommencing at the last-named date. Under these circumstances, he (the Chairman) recommended instead of winding-up to vigorously prosecute a further trial of the mine. He pointed out the desirability of calling up another 10s. per share; and that, if such additional capital were to be at once paid-up, it would not only facilitate but economise the workings. It was resolved that, in consequence of Lord Poltimore's liberal concessions, the working of the mine should be persevered with. Thanks were voted to Lord Poltimore and to Capt. Peocock, and it was resolved that the accounts be for the future kept in the form previously adopted by Mr. Taggart. The meeting unanimously voted the usual Christmas treat of roast beef, plum pudding, and beer, to the industrious and deserving miniug staff of the company.

At the Great Cwmsymlog Silver-Lead Mining Company general meeting, on Tuesday (Mr. J. B. Hartwell in the chair), the statement of accounts as circulated amongst the shareholders was allowed and passed, and the report of the agent was received and adopted. A resolution was passed to raise sufficient money by mortgage to liquidate the entire debts of the company.

At the Gwydyr Park Consols general meeting, the accounts showed a cash balance of 28*l.* 1s. 7d., and excess of liabilities 66*l.* 19s. 7d. A call of 1s. per share was made on the 6000 shares the company is divided into. The report stated that there is about 4 fathoms more to sink in the engine-shaft to hoie to the deep adit level, when the engine will be struck idle, and there will be then some hundred fathoms of ore ground to take away above the back of deep adit level, which the former workers could not keep the water to accomplish, not having the means of erecting an engine. There is a good tramroad in the deep adit level, which will enable the ore stuff when broken to be brought through to the foot of the mountain, where plenty of water will be at disposal for dressing, and open up a good road to take ore to the shipping port of Treffrew for sale.

At the Wheal Trelawny meeting, on Thursday (Mr. Peter Watson in the chair), the accounts showed a debit balance of 824*l.* 8s. 11d. A call of 10s. per share was made. Details in another column.

At Prosper United Mines meeting, on Thursday (Mr. Kilner in the chair), the accounts showed a debit balance of 2069*l.*, including the cost and returns up to the end of November. A call of 10s. per share was made; and considering the improved prospects of the mine, and the gradual advance that has taken place in the price of tin, it was resolved that the operations be continued with vigour. The report stated that from the appearance of the fine run of tin ground gone down in the 100, east and west of Hand's shaft, the shaft should be sunk with all speed. There are many other points very promising, the development of which can be carried on with the present machinery as it now stands, with a loss of 400*l.* per month, and with a little improvement in the mine, and a better price for mineral, this loss may be recovered. Until the points recommended have been attained, the agents could not say that the mine has had a fair trial, with such a plant of machinery for pumping, drawing, and stamping, and all in first-class order. It was agreed that Mr. Wescomb (the pursur) should meet some of the largest shareholders upon the mine, at an early day in January, for the purpose of consulting together, with the view of reducing the expenditure. The consideration of the question of the forfeited shares was deferred.

At the Port Phillip and Colonial Gold Company meeting, on Thursday (Mr. Moor in the chair), the special resolution passed on Dec. 3, reducing the capital of the company from 500,000*l.* to 200,000*l.*, and the liability per share from 5*l.* to 2*l.*, was unanimously adopted.

*** We shall continue our review of the members connected with the Mineral Interests in the New Parliament in next week's Journal.

ANTIMONY ORE.

THE SUBSCRIBER expects shortly at LONDON a PARCEL of the above, and also a FIRST CONSIGNMENT of YELLOW OXIDE of ANTIMONY. Samples on application.
JAMES THOMSON, 27, King-street, Kilmarnock. 55

TO CAPITALISTS.

A GENTLEMAN, lately from California, WISHES to get some GENTLEMEN OF CAPITAL to JOIN him in FORMING a COMPANY to WORK a number of GOLD, SILVER, and COPPER LODES, in ARIZONA, near the COLORADO RIVER.
These lodes can be made to yield over 100 tons per day, of 20 per cent. copper, containing gold and silver also, which can be delivered in England at a total cost of £8 or £9 per ton.
Specimens of ore, maps, and all particulars can be had by addressing "Arizona," 106, Drummond-street, Euston-square, London. 56

A GENTLEMAN connected with Mines, having an Office in the City, is DESIROUS of UNDERTAKING the LONDON BUSINESS of a MINING or OTHER COMPANY.
Address, "W. C.," Messrs. KING and Co., Old Jewry, E.C. 47

WANTED, by a Young Man (aged 23), a SITUATION as ASSISTANT MANAGER and BOOKKEEPER at a Mine. Has had five years' experience. Would have no objection to go abroad.
Address, "A.B.," Post Office, Mold. 48

TO CAPITALISTS.

WANTED, £15,000, for the FURTHER DEVELOPMENT of an extensive and valuable MINING PROPERTY, upon which a large sum has been expended.
For particulars, apply to Messrs. TOOKE, HALLOWES, and PRICE, 39, Bedford-row, London. 60

PARTNERSHIP, OR OTHERWISE.—A Gentleman, age 40, many years resident in France, possessing extensive connections in London and Paris, having under offer CONSIGNMENTS of the PRODUCE of the MIDI OF FRANCE—*i.e.*, WINES, LIQUEURS, DRIED FRUIT, and OILS—WISHES to be ASSOCIATED with ANOTHER, of active business habits, who can command about £250. The profits cannot fail to be very considerable. The highest references will be given and required.
Address, "Commerce," 13, Mortimer-road, Downham-road, Kingsland, N. 30

SLATE QUARRY.—The Advertiser has recently COMMENCED DEVELOPING a very EXTENSIVE SLATE ROCK in NORTH WALES, and already obtained a considerable quantity of good slates. The facilities for working are unusually good, and an expenditure of £1000 or £2000 more will bring the quarry into paying condition.
Any gentleman willing to spend that sum on the quarry for one-fourth share in the undertaking can have further particulars on application, by letter, to "T. N. W.," MINING JOURNAL Office, 26, Fleet-street, London, E.C. 31

BRAZILIAN INVESTMENTS.

MINING AND AGRICULTURAL PROPERTIES in this favoured country TO BE LEASED or SOLD.
For particulars, address C. WILLIAMS, Esq., 35, Coleman-street, E.C. 52

TO CAPITALISTS.—FOR SALE, in consequence of the retiring of a partner, several SHARES in a LEASE of MINERALS, of great extent and value, and in COLLIERIES, that are in full work, and paying large dividends.
Address, "A. B.," Post Office, Llanelly. 53

IMPORTANT MINING PROPERTY FOR SALE IN RHENISH PRUSSIA.—A BLENDE MINE, giving 3 to 4 tons of blende per fathom; a COPPER MINE, averaging 14 per cent. of copper; and THREE LEAD MINES, with 65 per cent. of lead.
Apply for particulars, to O. J. YOUNGHUSBAND, Esq., Wiehl, Kreis Gummersbach, near Cologne, Prussia. 57

FOR SALE, AT GRAMBLER AND ST. AUBYN MINES, ONE 60-in. cylinder PUMPING ENGINE, 10 ft. stroke in cylinder, and 9 ft. in shaft, with BOILER, about 14 tons; ONE 18½ in. cylinder WINDING ENGINE, 4 ft. stroke, fly-wheel and cage, with BOILER, about 7 tons.
Apply to Mr. F. W. DABB, Redruth. 55

TAQUARIL GOLD MINING COMPANY (LIMITED).
CHAIRMAN—HENRY HAYMEN, Esq.
CONSULTING ENGINEER—Capt. THOMAS TRELOAR.
Notice is hereby given, that the ENTIRE CAPITAL of this company has now been SUBSCRIBED FOR. The ALLOTMENT LETTERS for the 40,000 shares just issued will be posted in a few days, and due notice will be given when the certificates are ready for delivery. HENRY HAYMEN, Chairman.
52, Moorgate-street, December 15, 1868. 50

WEST CORNWALL GRANITE COMPANY (LIMITED),
In 1000 shares, of £10 per share (£8 10s. paid).

MR. HENRY MANSELL, 44, THREADNEEDLE STREET, LONDON, E.C., has a few SHARES in these PROFITABLE QUARRIES to OFFER at £5 per share (£8 10s. paid), at present paying from 10 to 15 per cent. The quarries are situated in West Cornwall, with shipping ports at Hayle and Porthleven, and are supplying a contract for the New Government Docks at Chatham and other works, and large quantities of the stone have been supplied for the Thames Embankment. The quality of the granite is equal to any in Cornwall, and upwards of 250 tons are shipped monthly, and the quantity can be considerably increased.
Samples of the granite, and all particulars, can be had at the above address.
Mr. H. M. recommends these shares as a sound investment. 54

THE SWEDISH SULPHUR ORE COMPANY
(LIMITED).
Capital £20,000, with power to increase.
In 4000 shares of £5 each, divided into 2000 A shares and 2000 B shares.
£1 per share to be paid on application, £1 10s. on allotment, with the option of paying up in full at a rebate of £5 per cent. per annum on the remaining £2 10s.
No call to be made at less intervals than three months, and no call to exceed in amount £1 per share.

Full prospectuses, reports, and all other information can be obtained of the secretary, at the offices of the company, 148½, Fenchurch-street, London, E.C., to whom application may be made for the remaining unallotted shares. 58

AT a MEETING held at REDRUTH, on Thursday, the 10th of December, 1868, for the purpose of considering the PRESENT POSITION of the LAW AFFECTING MINES in the STANNARIES of DEVON and CORNWALL,—
T. S. BOLITHO, Esq., in the chair,

It was moved by R. DAVEY, Esq., and seconded by R. R. MICHELL, Esq., and resolved,—

"That in the opinion of this meeting the law at present applicable to the Cost-book System requires amendment."

It was moved by Major BICKFORD, and seconded by S. H. JAMES, Esq., and resolved:—

"That a committee be appointed for the purpose of ascertaining the details in which amendment is required, and that it be requested to report to a general meeting as early in January next as may be convenient, with the view of embodying any suggested amendments in a Bill to be laid before Parliament in the ensuing session, such committee to consist of the twenty-seven gentlemen following, with power to add to their number:—

Sir W. WILLIAMS, Bart.	Major BICKFORD
Mr. RICHARD DAVEY	Mr. T. S. BOLITHO
Mr. WILLIAM SHILSON	Mr. S. H. JAMES
Mr. R. TAYLOR	Mr. R. R. MICHELL
Mr. MORRIS, Tavistock	Mr. RAWLINGS
Mr. WILLIAMS, Charlestown	Mr. H. GRYLLS
Mr. W. H. TREGONING, Truro	Mr. MARRACK
Mr. M. G. PEARCE	Mr. HILL
Mr. CHILDS, Liskeard	Mr. BOYNS
Mr. SMITH, Truro	Mr. HIGGS
Mr. DOWNING, Redruth	Mr. ARTHUR WILLYAMS
Mr. ROGERS, Helston	Mr. R. H. PIKE
Mr. CORNISH, Penzance	Mr. WILLIAM HARVEY."
Capt. W. TEAGUE	

It was moved by J. T. H. PETER, Esq., and seconded by W. SHILSON, Esq., and resolved:—

"That the Vice-Warden and Officers of the Stannaries Court be respectfully requested to make any suggestions to the committee which they may think necessary for increasing the efficiency of that Court, and that they be further respectfully invited to confer with the committee on the subject."

It was resolved,—"That the members of Parliament for the county and boroughs in Cornwall be requested to act on the committee."

Resolved,—"That Mr. Thomas Cornish be the secretary of the committee."
THOMAS S. BOLITHO.

Resolved,—"That the best thanks of the meeting be given to the Chairman for his conduct in the chair."
T. CORNISH, Secretary. 59

Contract for Coals for Portsmouth Dockyard Extension Works.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.

THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 5th of January next, at Two o'clock, they will be READY to TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING at the Portsmouth Dockyard Extension Works,

FOUR THOUSAND TONS OF COALS FOR BRICKMAKING,
And NINE HUNDRED TONS OF COALS FOR LAND ENGINES.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals for Portsmouth," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £25 per cent. on the value for the due performance of the contract. By order,
ANTONIO BRADY,
Registrar of Contracts and Public Securities.
Contract Department, Admiralty, Somerset House, Dec. 15, 1868. 60

Contract for Coals for Halifax.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.

THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 12th of January next, at Two o'clock, they will be READY to TREAT with such persons as may be WILLING to CONTRACT for SUPPLYING and DELIVERING into store at Her Majesty's Naval Yard at Halifax, Nova Scotia,

FOUR THOUSAND TONS OF SMOKELESS SOUTH WALES COALS,
Fit for the service of Her Majesty's steam-ships and vessels.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the lefthand corner the words "Tender for Coals for Halifax," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £25 per cent. on the value for the due performance of the contract. By order,
ANTONIO BRADY,
Registrar of Contracts and Public Securities.
Contract Department, Admiralty, Somerset House, Dec. 15, 1868. 61

Sale of Engines, &c.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.

THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that on TUESDAY, the 5th of January next, at Two o'clock, they will be READY to RECEIVE SEALED TENDERS for the PURCHASE of the ENGINES, SPARE GEAR, &c., taken from H.M. ships, "Comet" and "Cygnet," and lying in Portsmouth Dockyard.

Persons wishing to become purchasers must apply to the Admiral-Superintendent, H.M. Dockyard, Portsmouth, for notes of admission to view the engines, &c.

Catalogues and conditions of sale may be obtained here, and at Portsmouth Dockyard.

No tender will be received after Two o'clock on the day of treaty. It will not be necessary for parties tendering to attend on that day, as the result will be communicated to them in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the lefthand corner the words "Tender for Engines of 'Comet' and 'Cygnet,'" and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House.
By order,
ANTONIO BRADY,
Registrar of Contracts and Public Securities.
Contract Department, Admiralty, Somerset House, Dec. 15, 1868. 62

Contract for Best British Iron.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL

NOTICE IS HEREBY GIVEN that the DIRECTOR-GENERAL OF STORES FOR INDIA, will be READY, on or before Monday, the 21st instant, to RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to SUPPLY—

BEST BRITISH IRON.

And that the conditions of the said contract may be had on application, addressed to the Director-General of Stores, India Office, Westminster, S.W., where the proposals are to be left any time before Two o'clock P.M. of the said 21st day of December, 1868, after which hour no tender will be received.
India Office, Dec. 11, 1868. GERALD C. TALBOT, Director-General. 63

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Dec. 2	Pool Park	60	£12 10 6	Mining Co. of Ireland.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 2	Pool Park	7	£ 3 12 6	Kenrick and Son.

BLACK TIN.

Date.	Mine.	Tons. c. q. lbs.	Price p. ton.	Amount.	Purchasers.
Dec. 12	Wheal Uny	10 1 3 7 ..	£59 10 0 ..	—	— —

COPPER ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Dec. 15	Parys Mines Co....	150	£4 5 0	J. Keys and Son.

COPPER ORES.

Sampled Dec. 2, and sold at the Royal Hotel, Truro, Dec. 17.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols.	130	£5 6 6	Marke Valley	79	£7 8 6
ditto	125	2 15 0	ditto	50	2 9 6
ditto	123	5 4 0	ditto	42	1 12 6
ditto	119	3 6 0	ditto	30	3 4 0
ditto	118	5 9 6	Okel Tor	105	1 6 6
ditto	117	2 9 6	ditto	95	2 9 0
ditto	115	5 10 6	ditto	50	4 10 6
ditto	114	2 15 6	ditto	40	1 12 0
ditto	100	3 1 6	East Caradon	77	6 17 0
ditto	98	5 7 6	ditto	76	4 12 6
ditto	91	5 3 6	ditto	42	1 17 6
ditto	67	5 3 6	Gawton	51	2 17 0
ditto	61	3 1 6	ditto	36	2 17 0
ditto	54	2 11 6	ditto	31	0 16 6
ditto	45	2 14 6	ditto	29	6 3 6
ditto	44	2 19 0	Prince of Wales	48	3 19 6
ditto	38	12 9 6	ditto	40	5 15 0
ditto	33	2 11 6	ditto	32	5 15 6
ditto	30	5 8 0	Brookwood	54	2 10 6
ditto	25	2 2 0	ditto	31	2 14 0
ditto	18	5 0 0	Gonamena	55	5 15 6
Marke Valley	100	2 11 6	ditto	11	2 3 0
ditto	81	2 10 0	Old Gunnis Lake	8	2 14 6
ditto	80	4 14 6			

TOTAL PRODUCE.

Devon Great Con.	1665 .... £7288 2 6	Prince of Wales..	120 .... £ 605 12 0
Marke Valley....	462 .... 1712 11 6	Brookwood	85 .... 220 1 0
Okel Tor	290 .... 662 2 6	Gonamena	66 .... 341 5 6
East Caradon....	195 .... 957 14 0	Old Gunnis Lake.	8 .... 21 16 0
Gawton.....	147 .... 452 12 0		

Average standard..... £104 11 0 | Average produce 6⅛
Average price per ton £4 0 6
Quantity of ore ..... 3038 tons | Quantity of fine copper..197 tons 4 cwts.
Amount of money £12,261 17 0
LAST SALE.—Average standard..... £103 3 0—Average produce..... 6⅛
Standard of corresponding sale last month, £106 7 0—Produce, 6½.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	432½	£1529 9 0
Freeman and Co.	138	483 5 0
Grenfell and Sons	224½	1405 11 3
Sims, Willyams, and Co.	220½	917 10 0
Williams, Foster, and Co.....	580	2519 16 0
Mason and Elkington.....	299	1296 14 9
Bankart and Sons	51	174 19 6
Copper Miners' Company	235	425 7 0
Charles Lambert	210½	724 17 6
Newton, Keates, & Co.	298	1564 11 0
Sweetland, Tuttle, and Co.	349	1219 16 0
Total	3038	£12,261 17 0

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday next.—Mines and Parcels.—South Caradon 495—Great North Downs 360—Clifford Amalgamated 321—West Wheal Damsel 234—Phœnix Mines 197—Craddock Moor 55—Pennance 37—Grambler and St. Aubyn 4.—Total, 1703 tons.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday week.—Mines and Parcels.—West Seton 566—Clifford Amalgamated 371—East Pool 168—South Crofty 136—South Frances 91—North Grambler 63—Carn Camborne 35—North Crofty 19—Pendarves United 4.—Total, 1453 tons.

No. 1.—READY IN JANUARY.

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Civil, Mechanical, Military, and Naval,
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Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt: it then forms an accumulating useful work of reference.

COLQUITE AND CALLINGTON.—Why have not the particulars of the last general meeting been reported in the Journal? I am told that several most important and favourable reports were read; but, being unable to be in attendance, am in ignorance of the result. This is not as it should be.—A SHAREHOLDER.

SANTA BARBARA MINING COMPANY—"E. B." (Richmond Hill).—We are informed that notice was posted to every shareholder, giving him the option of exchanging the old certificates for shares in the new company, or taking the dividend. On application at the office, no doubt the matter will be looked into.

TINCROFT MINES, AND THEIR MANAGEMENT.—We have received several letters respecting the financial position of this company. We should recommend application to the Purser for particular information; and when publication is considered necessary, the names of the writers must be appended to their letters.

EAST GRENVILLE.—We received a report on this mine, signed by Capt. William Tonkin, but not one from Stephen Williams, of Camborne.

Received,—James Hooper—"A Shareholder"—"A Shareholder in the Pestarena Company"—"Verax"—"R. W. B."

SCALE FOR ADVERTISEMENTS.—To avoid the necessity of frequent application, we may state our charge for general advertisements is—for six lines and under, 4s.; per line afterwards, 8d. Average, twelve words per line.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, DECEMBER 19, 1868.

THE HINDLEY GREEN EXPLOSION.

The Hindley Green tale has been told, and its moral is humiliating. It is pitiful that after so much waste of life, and such vast destruction of property, we should all—managers and men alike—be so slow to practice the philosophy which past explosions have taught us. BOLINGBROKE it was who popularised the truth that history is philosophy teaching by example, and BOLINGBROKE found it, he thinks, in Dionysius Halicarnassensis. "A great while ago the world began," sings the clown as the scene drops upon the "Twelfth Night," and "a great while ago," we repeat, as this further page in the history of coal mining is finished, it was that we were first painfully taught that managers of mines should take care to have as little working space as possible open, should keep a reserve of air, and should permit blasting in fiery seams only rarely, and then by competent men alone. Yet if the philosophy taught by our long-past examples had been acted upon at the Hindley Pit, the working of the Arley seam there—fiery as it is—would not have led on, the 26th of last month, to the death of 62 workpeople, have made 20 women widows, and 60 children orphans.

All this is clear, notwithstanding that the jury could come to no sufficient conclusion to enable them to state definitely to what one cause in particular the calamity was due. The report elsewhere given of the inquest shows that the verdict recorded was what is generally known as an "open verdict," but that the evidence, confused and confusing as it necessarily was, convinced them that "the use of blasting-powder should be discontinued, and the air supply to the west working should be increased as soon as possible."

As to the lessons of the past upon the three points we have named, what are they? They were recapitulated, in brief, by Mr. DICKINSON (the Inspector for the Manchester District), whom Mr. HIGSON called to his help at this enquiry, and by Mr. HIGSON himself.

Upon the first point, Mr. DICKINSON says—

"In opening out mines like this, in a field which has not previously been tapped of its gas, it is very desirable that fewer drifts should be made at first than had been made in this instance. In nearly all the great explosions that have taken place in Lancashire a similar system has been pursued to that in use in this colliery; whilst those collieries where the levels had been driven out to the extremities, and the coal worked back, and these drift-works have only been cut as they came to be wanted for pillar-work, have escaped almost with immunity."

Upon the second point, how frequently have explosions given Mr. BROUGH and other Inspectors occasion to enforce as a *sine qua non* a never-ceasing and abundant current of fresh air. Let our readers again listen to what the Inspector we have named said in his report for 1866—

"It would be superogatory (he there writes) to state that a full amount of air is the first principle to be considered, for without that essential condition all observation and discussion would be futile. Whether this is brought about by the use of furnaces, or by the employment of machinery, the power in either case must still be so contrived as to yield the supply even in excess, in order to compensate for leakages, and for great contingencies. It is of no avail to invest the subject with mystery, or to obscure its simplicity by a cloud of abstruse calculation. There is nothing occult in ventilation. I repeat that it simply involves the power, whatever that may cost, of producing a superabundance of fresh air, and afterwards the practical knowledge of its proper distribution underground."

On this point it is satisfactory to us to find both Mr. HIGSON and Mr. DICKINSON urging in respect of this case as we urged in the Journal last week in regard to ventilation generally, that "there should have been a reservoir of fresh air near at hand, ready to be let into the mine to counteract any accumulation of gas." These are the words of Mr. HIGSON; and Mr. DICKINSON, in reply to the coroner's question—

"Can you say that the explosion is directly attributable to any default or even oversight on the part of the mananagement?" said "No: except that it is always desirable to have a very much larger margin for emergencies."

Previously he had said that the ventilation in the west dip workings (the place of the explosion) had been "run too close to allow for emergencies." Upon the third point Mr. DICKINSON summarises the past when he says, "Many large explosions have taken place in Lancashire owing to the firing of a shot, and others might be enumerated." The notable instances will occur to all of our readers, and we need not, therefore, even recapitulate them. There are a few other topics which might be taken up in connection with this accident, but we will now only name them. When Mr. DICKINSON is asked—

"Would you like the mode of ventilation to be changed?"

His reply is—

"No; now that these dip workings are becoming rather more extensive, the return air from them would be much better if carried back in a separate return, without mixing with the air from the rise workings. Still, they have sprung up gradually, and I believe at the time of the explosion preparations were being made for taking the air back separately."

Mr. GEORGE GILROY, mining engineer to the Ince Hall Coal and Cannel Company, who had examined the workings immediately after the explosion, in company with Mr. SOUTHWORTH, the manager of this pit, had ventured the unusual testimony, that if there had been 10,000 feet of air going through the workings, and a sudden outburst of gas had taken place there, that an explosion would have been just as likely to have taken place, and that it would have been more disastrous. Mr. HIGSON, referring at a subsequent inquest to Mr. GILROY'S evidence, as we here epitomise it, said—

"The author of this theory has only half told his tale. It is true that you may have gas in the atmosphere of a mine which may not be in a condition to explode. But you may increase it till it will explode. If you made the volume of atmospheric air in the ratio of 6 or 8 to the volume of gas, it explodes violently; if you make the ratio 14 to 1, it will explode with great celerity; but if you go on increasing the ratio till it reaches 30 to 1, the gas present will still show a large 'cap,' or indication of danger in the lamp, but go on beyond that and you destroy the possibility of explosion. Therefore, it is not true that by increasing the quantity of air you render an explosion of gas more severe; on the contrary, it is when you stop sending air into the gas that you allow it so to accumulate that it will explode."

Next, the bratticing at Hindley Green had been defended by Mr. GILROY, who said that, whilst he would not approve of bratticings 80 yards long, still, in some instances, he would prefer using bratticings of that length to using bratticings of 40 feet. He gave his reason—it saved the risk of leak at the joinings.

This theory also Mr. HIGSON expressly said he wanted to have "a rap at." And this is how he did it: he said—

"I think it is a bad thing to drive a long bratticing through a mine. I condemn the practice most strongly, and I think it has been proved over and over again that we have had many casualties arising from causes connected with that practice. I think 60 yards is too far to carry a brattice."

In reply to Mr. PICKARD, Mr. HIGSON said—

"He was not in favour of bratticings being put up which were longer than 40 yards. He certainly did not think that it would be proper, after what had taken place, to work with bratticing of greater length than 20 yards."

Respecting the general management of the colliery, Mr. HIGSON said (and Mr. DICKINSON was equally kind)—

"I think that those who were in charge of it have taken all the care they could with the machinery which was at their disposal—that is to say, with the system of ventilation and working the mine, standing as it did at the time of the explosion. I believe that Mr. SOUTHWORTH, the manager of the colliery, is most industrious and trustworthy, and that he would not leave anything undone that he could do. But, looking at the plan of the workings, I do not approve of the system of ventilation used in the pit, and I hope it will be altered. I do not mean to say that this system of ventilation has directly led to the casualty; I do not mean to say that, but I mean to say it may ultimately lead to one. What I do not like in the ventilation of the pit is that the air which carried off gas from the dip workings is afterwards sent to supply other workings."

This we have seen is being remedied.

Henceforth we have no doubt that in this colliery there will be both a reserve of air, and that powder will be as much as possible abandoned, but that when used it will be used by competent men, and under supervision. But it will be ever to be deplored if other collieries are not made safer by the facts here noticed, even without the use of gun-cotton, dynamite, and cutting machines, which must all get more attention than they have yet received.

MINING ENTERPRISE, AND THE COST-BOOK SYSTEM.

For the successful development of our mineral resources, and for the protection of those concerned in the working of mines, whether as adventurers or as working miners, the Stannaries laws possess advantages which cannot be claimed by any other laws which have been framed for the regulation of commercial undertakings carried on with associated capital, yet it is felt that certain amendments might be introduced which would facilitate the application of those laws, and give increased satisfaction to all concerned. This being the general feeling entertained by mine adventurers, both in and out of Cornwall, an influential meeting has been held at Redruth (under the presidency of Mr. T. S. BOLITHO) "to consider the necessity of alterations in the laws of the Stannaries Court of Cornwall and Devon," the great object of which was to suggest such modifications as shall adapt the Cost-book System to the more extensive partnerships to which it is now applied. The Chairman stated that in former days the Cost-book System had certainly worked admirably. At that time at the end of each quarter the shareholders assembled, the cost was made up, each party contributed his share to the actual expenditure, and each party generally threw in a sufficient sum towards meeting the expenditure of the next quarter. As long as mines were held in 64ths and 128ths that system answered remarkably well, but when mines came to be divided into 1000, 3000, 6000, or even a greater number of shares, and when these shares came to be distributed throughout the length and breadth of the land, the case was very much altered, and it had been found practically impossible to enforce the payment of calls. The consequence was that the balances in the cost-books had been allowed to accumulate. When at the end of a quarter it was found that there were large arrears of previous calls, it was felt to be useless to make others, and merchants' bills were allowed to accumulate, and bankers' balances to increase, until at length the banker and merchant put on the screw, and the next thing they heard of the mine was that it was being wound up.

It should be well understood that no complaint whatever is made against the officers of the Stannaries Court, or as to the mode in which they administer the law, the ground of complaint being that, owing to mine adventurers being now resident in every part of the country, instead of in the immediate vicinity of the mines, rules which were formerly amply sufficient for all the requirements of the case have now become inoperative. Under the existing laws the working miners are frequently severely punished. Previously to the Winding-up Act of 1862, when a mine got into difficulties, and the wages were not paid, the miner applied to the nearest magistrate, who, after sufficient consideration, granted a summons against the mine agent for the amount of the wages. If the money was not paid, which almost invariably it was, at the end of 21 days, the working miner took precedence of every other claimant. There cannot be considered anything unfair in that. A merchant knew whom he was trusting—he could enquire who the shareholders were. But the working miner took from the mine captain, and was really ignorant who his employers were. At the present time, as soon as a magistrate's summons was granted, some one filed a petition, and the Court took possession in 12 days. Then the miners had to come to Truro and prove their debts like any other creditors. The result was that they were thrown out of work, and had to wait a considerable time before they got their money. It was, however, fully agreed that some amendment was necessary, and it was ultimately resolved to appoint a committee, consisting of Sir W. WILLIAMS, Mr. P. P. SMITH, Mr. MARRACK, Mr. W. SHILSON, Major BICKFORD, Mr. T. CORNISH, Mr. H. ROGERS, Mr. R. R. MICHELL, Capt. TEAGUE, Mr. W. H. TREGONING, Mr. S. H. JAMES, Mr. T. S. BOLITHO, Mr. RAWLINGS, Mr. WILLIAMS, Mr. H. GRYLLS, Mr. ARTHUR WILLYAMS, Mr. F. HILL, Mr. DOWNING, Mr. R. DAVEY, Mr. C. CHILDS, Mr. R. TAYLOR, Mr. MORRIS (Devon Consols), Capt. BOYNS, Mr. S. HIGGS, Mr. G. PEARCE, Mr. R. H. PIKE, and Mr. W. HARVEY, for the purpose of ascertaining the details on which amendment is required, and to request such committee to re-report to a general meeting as early in January as convenient, with a view of embodying the suggested amendments in a Bill to be laid before Parliament in the ensuing session.

The highly satisfactory manner in which the Vice-Warden and his officers had administered the law as it at present stood was adverted to by Mr. PETER, and Mr. SHILSON pointed out that there was no desire to do away with the Stannaries Court, nor was there any feeling of hostility towards the Vice-Warden or the Court. They simply wanted an amendment of the law, by which the Court would receive additional powers. There were at present a number of speculators connected with mining who did not care whether a mine succeeded or not, and whose simple object was to buy and sell shares. If the shares sold well their object was attained. If not, they repudiated them, refusing to pay their calls, and the honest shareholders suffered. They wanted powers to deal with such people. And it appears that the Vice-Warden is quite as desirous as anyone to see any useful modification introduced, for he had desired his secretary, Mr. P. P. SMITH, to state to the meeting that he would be most happy to do anything in his power to facilitate operations; and, in writing to Mr. SMITH upon the subject, he said—

"It is not a part of my judicial duties to manage mining property. Probably I should not make a good captain of a mine, and, therefore, I should not voluntarily take upon myself the responsibility of suggesting the best form of organising one. But if those who are interested in the question should desire my aid or advice I will gladly promote their object, either by Act or by their own existing powers of regulation, provided I can see my way clear to measures that may be reconcilable with the just claims and interests of lords, adventurers, and of creditors, whether merchants or bankers. It is a matter which, under such circumstances, I will undertake to bring before the notice of the legitimate authority in point of official duty—the Lord Warden and Prince's Council."

The difficulty of inducing the House of Commons to consent to exceptional legislation was pointed out by both Mr. SMITH and by Mr. ST. AUBYN, M.P., the latter gentleman remarking that as the Stannary laws referred only to Devon and Cornwall there would not be the same obstacles in the way of dealing with them. He should gladly co-operate with the other county members in the matter, and could answer that Mr. PENDARVES VIVIAN would do all he could. He should like to learn their wishes as early as possible, in order that no time might be lost. Mr. MARRACK considered that very little legislation was required, since under the Act of 1862, which applied to England and Wales, the Stannaries Court had the same powers as the Court of Chancery. If they were dealing with a limited company it should be remembered they were dealing with limited means. There had been a good deal of misconception about the Court, and he should be happy to give any information in his power. The question at issue was really one of calls, and he believed that an easy process could be devised to recover them without an Act of Parliament. With regard to the labourers, under the Limited Liability System they could only share in the assets with the other creditors, and could not be paid in full if there was not enough money. Under the Cost-book System they were paid. This opinion was concurred in by Mr. H. ROGERS, who remarked that he thought they had missed the object of the meeting, which was, in his view, rather to prevent the necessity for legislation than to devise more expeditious means of conducting it. He believed they could attain their desires without legislation. He quite agreed with what had been said with regard to the practical working of the Stannaries Court, and it appeared to him they might attain their object by passing the necessary resolutions at the formation of a company. If these were entered on the cost-book they would bind the original shareholders and those who acquired shares from them.

On Monday, the committee held its first meeting at the Royal Hotel, Truro, when the names of Messrs. DEEBLE, BOGER, and R. W. CHILDS were added; and letters were read from Mr. R. DAVEY, excusing himself from acting on the committee, and from Major BICKFORD and Captain BOYNS, of Boswedden, regretting their inability to attend. The meeting sat for upwards of three hours, and arrived unanimously at several important resolutions. The principal topics under discussion were the necessity of making calls valid if made by a majority at meetings specially convened; the expediency of giving pursers power to sue for calls, and adventurers the power of forfeiting shares on non-payment of calls; the propriety of giving wages precedency; and the desirability of assimilating the period of the liability of a past shareholder in a cost-book company in winding-up suits to that of a past shareholder in a joint-stock company.

COAL, OR SUN.

Our contemporary, the *Daily News*, who is doing good service to the country by frequent articles upon scientific questions, treated familiarly, said, a few days ago, in an article upon "Working the Solar Rays"—"Our men of science need no longer enquire into such questions as the waste of coal, the waste of metals, the waste of manure, and the like, if only they could show how the inexhaustible stores of solar heat may be made use of." The writer then goes on to announce that the subject has been dealt with in a "practical" (?) manner by Mr. ERICSSON, the inventor of the caloric engine, and of many other ingenious contrivances for obtaining or utilising motive forces. How in this alleged "practical" manner Mr. ERICSSON proposes to utilise the Sun's rays that gentleman has explained to the Swedes, in a letter to the Stockholm *Aftonbladet*. In that communication Mr. ERICSSON discusses his theme, certainly with a view to "practical" results, but not, to our mind, in such a manner as can lead to so desirable an issue. He talks of "condensing" the Sun's rays by some method which is not clearly explained. The process, however, would seem, from the conclusions arrived at by the writer who has given it most prominence in this country, to be to his mind conclusive enough; for the general tendency of his article is to excite our hopes that, through the instrumentality propounded by Mr. ERICSSON, calorific forces in the future may be supplied to us at a very much cheaper rate than through the agency of our ordinary fuel.

At the outset of his proposition Mr. ERICSSON appears to have fallen into the error of considering "concentration" and "condensation" of the Sun's rays as convertible terms. This, however, is not so. Every schoolboy who has blistered his hand with a burning-glass knows very well the practical meaning of "concentrating" the Sun's rays. The "condensation" of them—that is, the fixing of their calorific forces in some latent and portable form, whence they can afterwards be liberated and utilised—is a very different matter indeed. The one is simply mechanical, the other is chemical, and the only agency with which we are at present acquainted capable of performing this latter very important operation is the leaf of the living tree or plant, which under the influence of the Sun's rays separates the constituents of the carbonic acid floating in the atmosphere, absorbing the elemental carbon and liberating the oxygen.

This operation is of a refrigerating nature, but the caloric of the Sun's rays, instead of being dissipated in effecting the separation above described, becomes fixed or latent (that is, hidden or concealed), in connection with the elemental carbon and the resultant accretion is what we commonly term carbon—that is, elemental carbon plus the latent heat of the sun's rays, which has been expended upon it in separating it from the oxygen with which it was previously combined in the carbonic acid, and which latent heat has taken the place of that gas, through the agency of that undefinable something which we call the vital energy of the plant, but about which we know very little. Thus, in solid carbon we have the calorific forces of the Sun's rays truly "condensed." When this substance is first formed it is, of course, mixed with various volatile juices and earthy matters, formed in the growing plant, and which it has derived from other sources. But once formed, this solid carbon is capable of a great many transformations, without parting with the latent heat it has

received, and which it still retains, stored up in connection with it. Thus it is changed into peat, coal, diamond, and, by assimilation from the carbonaceous food we take, it forms a large portion of the flesh and bones of animals.

This solid carbon can only be made to give up the latent heat stored in connection with it by its being brought into contact with oxygen at a certain temperature, and under certain conditions. We effect this operation by placing the solid carbonaceous matters in some suitable receptacle, such as a common fire-grate, or boiler-furnace, and having raised the initial temperature to a sufficient point by some extraneous means, we then allow a stream of atmospheric air to pass through the materials. The oxygen from the air then uniting again with the elemental carbon, liberates the stored up latent heat, which we utilise for the production of force in various ways—the elemental carbon passing away with its original companion, the oxygen, as carbonic acid.

This hypothesis, which we admit is open to discussion, is the history and meaning of the "condensation" of the calorific influences of the Sun's rays, and of the means by which, after they have been stored up for unknown ages, we may again derive use and comfort from them. But now the question comes—Has Mr. ERICSSON indicated a cheaper or more portable plan for the storing the calorific forces of the Sun's rays than that worked out for us in the natural way? We venture to think not; and that our coalowners need not at present fear him as a rival, whilst those who are annually expending large sums in utilising the forces of heat must wait for a long time before they find a cheaper method of doing so than by consuming our ordinary fuel. Mr. ERICSSON does not tell us that he has discovered some other cheap and portable vehicle by which the Sun's rays can be absorbed, and stored in a latent shape, and thence by simple and cheap means liberated again at will for use. It is evident that he has no idea of chemical "condensation," but only of some mechanical "concentration," the economics of which it may be worth while to consider a little. He states that "in weather *suitable* for the action of sun machines, the action of the Sun, in a superfices of 100 square feet, can evaporate 489 cubic inches of water in an hour, which is equal to the action of a motive force capable of raising 29,750 lbs. 1 foot high." This quantity will be more or less as the weather is more or less "suitable." The word "suitable," as descriptive of the evaporative power of the Sun's rays, not being fixed by any thermometric scale, it is impossible to follow Mr. ERICSSON'S calculation with the exactness we should desire, but taking his basis we have as our starting point the statement that 100 square feet of "concentrators" will produce nearly 1-horse power when the weather permits—that is, when the Sun shines "suitably;" whence it follows, under the same conditions, that 10-horse power will require 1000 square feet of the same instruments. But as, unfortunately, the power will only be produced whilst the Sun shines "suitably," and as that luminary is only above the horizon on the average of 12 out of 24 hours, and as in the winter time his presence is much less propitious, and as, in addition, there are many days together when he does not shine at all, then, in order to produce anything like a uniform power, we must have an area of "concentrators" at least five times that which would be necessary if the Sun shone "suitably" all the 24 hours round, and there were no such things as clouds. We shall thus find that nearly an acre of "concentrators" will be necessary to produce, with any regularity, 100-horse power.

But even this could not be guaranteed in the November fogs and winter months generally, when it might require an area equal to a large estate to produce 100-horse power. Fancy for a moment the blank despair of some enthusiastic manufacturer, living in a crowded town, who desired to drive his cotton-mill by "concentrated" Sun's rays, being told that to do so he must purchase an acre of "concentrators," which we presume must be some sort of reflector, of metal or glass; that he must then purchase an acre of ground on which to erect them; that he must cover that acre with a net work of steam-pipes, fittings, and boilers; that each "concentrator" would require expensive machinery always to keep it facing the sun at the proper angle; that all this machinery would have to be worked prior to any power passing into his accumulators, which would be massive and extraordinary machines, at least five times as large as an ordinary 100-horse power engine; that, further, he would have to keep a small army of men, with cotton-waste and wash-leather, constantly cleaning his acre of "concentrators," to have them in readiness to reflect the rays of the Sun; and that into it all, in the event of a succession of dark or cloudy days supervening, he could not even then be guaranteed the continuous command of his 100-horse power—and then we may form some slight idea of what Mr. ERICSSON thinks he can offer in competition with our ordinary fuel.

In further proof, however, that the time of the "sun-machine" is not yet, we should note that our ordinary fuel has driven the wind-mill out of the market, the motive power of which is as cheap as sunlight; and as, horse power to horse power, the outlay to establish a combination of windmills will be less than to establish a combination of "sun-machines," it necessarily follows that these latter will not be brought into practical use until not only our Coal is exhausted, but the wind ceases to blow.

THE GREAT POLISH SALT MINES—THEIR WONDERS AND THEIR WEALTH.

A correspondent, writing from Cracow, says that the famons salt mine of Wieliczka, which brings a net annual revenue to the Austrian Government of upwards of 600,000*l.*, is threatened with total destruction by a stream of water which made its appearance on the 19th of last month while the workmen were digging in one of the lower shafts in search of potash. All the means hitherto adopted of preventing the water from inundating the mine have been unsuccessful; it flows at the rate of 120 cubic feet a minute, and has already almost filled the lower passages, rapidly dissolving the salt with which it comes in contact. A Government engineer has arrived from Vienna, and a channel is being built under his directions for confining the water and leading it out of the mine, but it is feared that the salt columns which support the transverse shafts may be undermined before the work can be completed.

These salt mines, the most renowned in the world, are situated about 8 miles from the city of Cracow, having their mouth or principal entrance in the pleasant village of Wieliczka, which lies on the slope of a wooded hill, and is very picturesque. The superintendents of these mines reside here, and their dwellings, together with the Government offices and large storehouses for salt, occupy a pretty eminence, and are conspicuous from a distance. A great many people from various countries visit these remarkable excavations, and are well rewarded for their trouble. Every year for many centuries having added to their depth and extent, the mines are now of immense and almost inconceivable magnitude. In order to visit them the traveller must procure a permit from the Government, which is easily done, the proper officer being on the spot. The opening or square shaft, through which the descent is made, is covered by a building or office; and here the visitor is dressed in a long coarse linen blouse, to protect his clothing while underground. A door is opened, and he goes down by stairs, preceded by boys, who carry lamps only to make the darkness more visible. Or, if he is so disposed, he can descend by the windlass and ropes suspended in the centre of the shaft. More frequently visitors descend by the stairways and come up by the ropes.

No salt is seen for a depth of more than 200 feet; then the veins begin to appear in a bed of clay and limestone: 50 feet further down the stairs terminate, and the salt is everywhere; nothing but salt; overhead, under foot, on every side are dark grey masses of solid salt, whose points and surfaces sparkle in the lamp light. Galleries now branch off in all directions. Lights twinkle, and groups of labourers are seen hacking the floors, or removing in wheelbarrows blocks that have already been cut out. Passing on through one of these galleries a chapel is reached, which is only the first and oldest of many apartments thus designated, differing only in size and decorations. It is called the chapel of St. Anthony, and is supported by columns of salt left in quarrying the solid rock. It has an altar, crucifix, statues of saints large as life, all of pure salt. The air in this part of the mines, near the surface, is much more moist than that of the deeper excavations, so that the process of dissolving goes on slowly, and in consequence some of these statues of salt are gradually losing their shape. The head of one is nearly gone, the limbs of another, while deeper furrows are observable in many places upon their bodies, making them present a very grotesque appearance when lighted up for exhibition. The smoke of the torches and lamps, added to the dampness of the air, blackens the surface of all objects not recently cut, so that these statues might be mistaken for black marble.

Onward and downward goes the visitor, through halls, chambers, tunnels innumerable. Stairs descend lower and lower, and similar apartments re-appear, till he loses all sense of distance or direction; blindly following his conductors, who point out from time to time localities or objects of peculiar interest where all is surpassingly wonderful. Everything is solid salt, except where some insecure roof is supported by huge timbers, or a wooden bridge is thrown over some vast chasm from which thousands of tons of salt have been quarried and removed. The air grows dryer and purer the deeper you go; the points and faces of the rock more crystalline and brilliant. One enormous hall, out of which has been cut a million hundred weight of salt, has the appearance of a theatre. It is over 100 feet high, and the blocks, taken out in regular layers, represent the seats for the spectators.

In another spacious vault stands two obelisks of salt, which commemorate the visit of the Emperor Francis I. and his empress. Further on you come to a lake more than 20 feet deep, intensely salt, of course, which is crossed in a heavy square boat. In this you paddle through a tunnel which connects two immense halls. While in the middle of the tunnel the walls behind you and before you are brilliantly lighted up, and a gun is discharged which, with its echoes and reverberations, almost deafens you. Both air and water tremble visibly under the strange and frightful concussion, and you are only too thankful to reach the end of your voyage and stand once more on solid salt.

Francis Joseph's ballroom is another of the wonders of this subterranean world. It is an immense apartment, both in height and extent, and on some festive occasions is used in dancing. It is lighted by six large chandeliers, which resemble cut glass, but are in reality of crystaline rock salt. Statues of Vulcan and Neptune, sculptured from salt, also adorn this hall, which well illuminated, exhibits a marvelous splendor, the light being reflected from innumerable brilliant points and angles of the glittering rock.

Down, down, down hundreds of feet further, through labyrinths of shafts, galleries and chambers, crooked passages, vaulted archways, and openings which have no name and seemingly no end. Groups of miners, naked to the hips, are everywhere busy with the implements of their darksome labours; pick, mallet, and wedge are employed incessantly in blocking out and separating the solid mass. Their manner of work is the same simple process in use centuries ago, perhaps by the remotest ancestors of these very men, in these very mines, for they are immensely old. The blocks are marked out on the surface of the rock by grooves. One side is then deepened to the required thickness, and wedges being inserted under the block, it is soon split off. It is then divided into pieces of a hundred pounds each, and in this shape is ready for sale. It is removed in carts or barrows to the shaft, where it is hoisted up, stage after stage, to the surface. Horses and mules are employed, and it is said that some of these animals are born and raised in the mines.

The number of labourers constantly at work is from 1000 to 2000. They all live outside the excavations at the present day, although traditions exist of times when the families of some of the miners had their abodes in these fearful depths, and where children were born and reared to the occupation of their parents, seldom or never visiting the outside world. The thing is neither impossible nor incredible, as the air in the lowest part of the mines is considered more salubrious than in their upper regions. But the practice was long ago discontinued, if it ever existed to any extent.

The miners, who are fine muscular and healthy looking men, are divided into gangs for work, and relieve each other every six hours. A gang will quarry in that time about 1000 lbs. weight. The temperature is very even all the year round, and the preservative power of the air is such that wood never decays, but retains its qualities for centuries. People with pulmonary affections are said to have been much benefited by inhaling freely the atmosphere of the mines.

When and how this wonderful deposit of salt was originally discovered is unknown. It was worked in the 12th century, and how much earlier none can tell. Some traditions are held by the ignorant and superstitious peasants of the country, which ascribe the discovery to miraculous or supernatural agency. Others say that a certain Queen of Poland, on visiting the spot, commanded her subjects to dig there, assuring them that there was a most precious treasure beneath them. After awhile a crystal of salt was found, which, as an earnest of the abundance afterwards discovered, this Princess had set in a ring as a Royal gem, and wore to the day of her death.

The extent of the deposit has not yet been fully ascertained. It commences, as we have before stated, about 200 feet below the surface, and has a solid depth of nearly 700 feet, and rests on a bed of compact limestone, such as forms the peaks of the Carpathian Mountains, which it seems to follow. It has already been explored to the continuous length of 2½ miles; and it is estimated that the aggregate length of all the innumerable excavations of these mines amounts to more than 400 miles.

IRON AND STEEL INSTITUTE.

It will be remembered that at the last quarterly meeting of the Northern Iron Trade, held at Newcastle, a paper was read by the secretary, suggesting the desirability of establishing an iron and steel institute, for the purpose of affording a means of communication between the members of the iron and steel trades, and for holding periodical meetings when subjects of practical or scientific interest could be discussed. The proposal was very warmly received, and a provisional committee was at once appointed to carry out the scheme. A meeting of this body was held on Thursday at the Westminster Palace Hotel, under the presidency of Mr. ISAAC LOWTHIAN BELL. Amongst those present were—Mr. EDWARD WILLIAMS, Darlington; Mr. W. R. I. HOPKINS, Middlesborough; Mr. DANIEL DALE, Darlington; Mr. W. NEILSON, Glasgow; Mr. J. T. SMITH, Barrow; Mr. S. BROWNE, Workington; Mr. THOMAS HORTON, Shiffnal; Mr. WILLIAM FOWLER, Chesterfield; Mr. F. W. KITSON, Leeds; Mr. E. VICKERS, Sheffield; Mr. WILLIAM MENELAUS, Dowlais; Mr. R. FOTHERGILL, Merthyr; Mr. CHARLES BAGNALL, Whitby. As the provisional committee had received the names of about 150 gentlemen, directly connected with the iron trade, who were willing to become members of the Institute, it was decided to proceed at once with the formation of the society. A code of rules was accordingly drawn up, and it was resolved that the Duke of DEVONSHIRE should be requested to become the first President of the Institute. It is proposed to hold the inaugural meeting in London, during the month of February next.

THE WORKING OF COAL BY MACHINERY.

At the Institution of Civil Engineers, on Tuesday, Mr. S. P. BIDDER, jun., Assoc. Inst. C.E., read a paper "On Machines Employed in Working and Breaking Down Coal, so as to avoid the Use of Gunpowder." It was stated that the object of this communication was to direct attention to the "winning" of coal by mechanical appliances, with the view of obviating the loss in production and the danger to to the colliers which were incidental to the use of gunpowder. Several inventions for this purpose were described, including the machines of Mr. COCHRANE, Mr. CHUBB, Mr. GRAFTON JONES, and Mr. FARUM; and it was remarked that the great defect in all these machines was their limited expansive power, which did not exceed 3 in., and which in practice proved to be insufficient for breaking down a mass of coal in a workable state. Machines for cutting grooves or slots in the coal had also been tried, but it was said only with partial success.

After fully considering these various systems the author had, in conjunction with Mr. JOHN JONES, devised a machine which had been submitted to actual trial on a working scale at the Harecastle Colliery, where the results where so satisfactory as to induce the proprietors to make arrangements for its immediate adoption. The machine consisted of a small hydraulic press of 12 tons power, to which was attached a pair of tension bars, bent in the form of a connecting-rod or hinge-strap. These were placed one over the other in the bore-hole, and between them, at the extreme end, there were a clearance-box and two metal pressing-blocks, between which was forced, by the action of the hydraulic press, a split wedge 15 in. long, causing a lateral expansion of 3 in. The ram was then withdrawn, and a second wedge was inserted between the two parts of the first wedge, and was forced up until sufficient expansion was obtained to break the coal. The operation could be repeated several times if found necessary. The whole apparatus would weigh about 50 lbs. The hydraulic-press was in future to be made of steel, and the ram would be cored out. In practical working each gang of colliers would be provided with the tension bars and three wedges, while the presses would be under the charge of the men who at present occupied the position of firemen, so that no new class of labour would be introduced, while the risk of firing would be got rid of. Trials had been made both in the 7-ft. and 9-ft. seams at Harecastle; and in the latter, with three wedges, about 12 tons of coal had been brought down in only three or four pieces. It was found that the press could be applied and the blocks brought down in less time than was consumed in firing and waiting for the smoke clearing.

Explosions in mines were known to arise, very frequently, from the employment of gunpowder for blasting. In the interests of humanity alone an efficient substitute had long been desired by practical men, and this it was believed had been accomplished by the machine under consideration, which had also the advantage of preventing the waste of coal incurred by the present system.

MINING BY MACHINERY.—Mr. Dœring's contract with his rock-boring machine at Tincroft Mine has been satisfactorily completed, so that the more general adoption of the machine in hard ground may be anticipated; indeed, negociations are already pending with some of the principal mines. During October Mr. Dœring employed boys instead of men to work his machine, and found that the progress made was the same, whilst the change led to a reduction in the cost of working of over 2*l.* per fathom. In the month of October three men and three boys extended the level 19 feet for 45*l.* 14s. 6d., so that it may be supposed that, if three ends had been worked instead of one and the surface expenses spread over the three ends, the result would be that ground costing 20*l.* per fathom if driven by hand in the ordinary way, would cost only 11*l.* 9s. 10d. by machine. Whether the reduction in working expenses or in time be considered, the value of the machine will be appreciated. In next week's Journal further details will be given.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,
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Mr. LOFTUS PERKINS, of Seaford-street, Gray's Inn-road, has specified a patent relating to the manufacture of wrought metal wheels. The object of this invention is to manufacture a wheel of wrought metal without it being necessary to weld the ends of the spokes to the nave and tyre. For this purpose the spokes are formed with screw threads at their ends, and such spokes are screwed both into the nave and into the tyre. To admit of this the holes in the tyre into which the spokes are screwed may be formed entirely through the tyre, and the spokes may all first be screwed into their places in the tyre, and afterwards each spoke may be screwed back a distance, to cause its inner end to enter and screw into a hole formed to receive it in the nave. In order to secure the spokes when they are thus screwed into their places, and to prevent them becoming unscrewed, the metal of the knave and tyre is hammered or closed in around the ends of the tubular spokes, by which means the joints between the nave, the tyre, and the spokes are rendered perfect. When tubular spokes are used, a metal plug is fixed in the outer end of the tube.

Mr. W. E. EVERITT, of Birmingham, has obtained a patent for an invention for casting copper tubes and cylinders. The object of this invention is to remedy the defects arising from the air-holes and cracks usually found in casting copper tubes and cylinder. For this purpose a mould of iron or other material is used, the exterior form of which may be that of any rectangular figure, the interior being that of an ellipse open at each side. This ellipse is furnished with an internal sand core, and the side openings are filled with sand wedges or pluggings of any other suitable material. The molten copper is poured into the mould through a lip, and when nearly set the casting and mould box are removed to a hydraulic or other powerful press, by the action of which the particles of copper are forced into intimate compact, after which the tube or cylinder will have the pins removed, by shearing or otherwise, and it is then ready for drawing or rolling.

Mr. JAMES HEPWORTH, of Wakefield, and Mr. G. W. BAYLDON, of Calder Grove, near Wakefield, have specified a joint patent relating to boilers and furnaces. The invention relates to the construction and arrangement of boilers and furnaces, and to the mode of firing or working same, in order to promote a better combustion of, and thereby economise, the fuel, also to consume or prevent smoke arising therefrom. The improvements consist, as applied to Cornish or flued boilers, in constructing each with an oval flue, instead of two, as now ordinarily placed therein; and in fixing therein a series of small tubes, by preference in or near a vertical position, and arranged in lines intersecting or diagonal to the tube, and throughout its whole length. The furnace is placed to the front of said boiler, and divided into two fire-boxes by a water space or tank, which enters a short distance into the tube, and is connected at top and bottom to the boiler by pipes, so that water can circulate through it. Passages or openings are formed through this tank, and dampers are placed betwixt each fire-box and the boiler-flue, so that when firing either of them the damper of that one being fired may be closed, and thus cause the products of combustion thereof to pass through the openings into the other fire-box, the damper of which must be open. Thus, the smoke or gases evolved from the newly-supplied fuel, by being compelled to pass over and in contact with the incandescent fuel of the adjoining fire, will be consumed or prevented from escaping. When applied to cylindrical boilers, or those not having flues formed through them, the furnace is placed under the end as usual, but divided by a tank, which extends the whole length of the boiler, and connected thereto by branch pipes, to admit of a circulation of the water. The outer walls of these furnaces may be of fire-brick, or of metal lined with fire-brick.

REPORT FROM SCOTLAND.

DEC. 16.—Owing to the withdrawal of speculative influences, "bulls" having got tired of holding for the nonce, prices of pig have declined slightly this week, 53s. 4½d. cash having been accepted on Monday; and yesterday, at the close, 53s. 4d. was all buyers were disposed to offer. If the market is left to its own weight we may close the year with quotations at 53s. to 53s. 3d. During the week the shipments were not numerous, being 7990 tons, against 8480 tons in the corresponding week of 1867. In the forenoon, to-day, there was a better tone, 4000 tons done at 53s. 6d. to 53s. 7d. cash, and 53s. 9d. a month, closing sellers 53s. 7½d. cash, and 53s. 10½d. a month; buyers less 1½d. No. 1, g.m.b., 54s.; No. 3, 51s. 3d.; Gartsherrie and Coltness, 59s.; Calder, 57s.; Glengarnock, 55s. The makers of malleable iron are, to some extent, getting bare of orders, and are running their mills three, four, and five days a week, merchants keeping up their orders as well as they can till after the approaching holidays are over. The trade is healthy, however, and there are hopes cherished that if a change is to be effected it will be by way of an advance. The pervading feeling in all departments of the finished iron trade is one of quietness, but this is a uniform peculiarity at this period of the year. Quotations as last reported.

Coals are not being advantageously affected for the masters, and the weather continuing mild has lessened the demand for domestic purposes. The colliers about Slamannan and Airdrie districts have had their wages reduced from 4s. 6d. to 4s. per day, and there are fears that if no advance takes place in the price of coal 4s. will be the highest standard on resuming work at the beginning of the year. Quotations are 6s. 6d. to 8s. 6d. f.o.b. in the Clyde, 10d. per ton more at Greenock. The shipments for the week ended yesterday were 22,855 tons, against 19,905 tons in the same week of last year.

At the Geological Society of Glasgow meeting, Mr. Edward Hull, F.R.S., presented and explained a map of Great Britain which he had prepared, at the request of the Royal Coal Commission, to illustrate his views regarding the extent and depth to which the coal fields of England stretch beneath the Mesozoic formations. This map, which we have been informed is to accompany Mr. Hull's evidence when published in the Blue Book, showed that while there is a large area in Cheshire, Staffordshire, Warwickshire, Leicestershire, Notts, and Yorkshire formed of Triassic and Permian rocks overlying the coal, yet that this mineral does not extend under the eastern and southern counties of England, which are considered to be formed of newer formations, resting on rocks of older age than the coal measures. The same gentleman also exhibited a specimen of native copper in trap, and prehnite embedded in analcime, which he presented to the society's museum, in connection with the Andersonian University.

IMPORTANT MINING CASE.—The following is the substance of interlocutor pronounced by Sheriff Logie, of Airdrie, *in causa* the Procurator-Fiscal of Airdrie *v.* Merry and Cuninghame:—

Airdrie, Dec. 4.—Having heard the public prosecutor for himself, and counsel for the respondents, and thereafter made avizandum with the cause. . . . . Finds that John Nish is manager of the respondents' pits at Woodhall, including the Garden Pit. . . . . Finds that John Twaddell was the contractor for conducting the brushing in said pit, and that part of his contract included the duties of fireman. . . . . Finds that on the same evening [Aug. 6, 1868] John Scally and John Conolly, two brushers in the employment of John Twaddell, came to the pit between 7 and 8 P.M. for the purpose of carrying forward the brushing. . . . . Finds that this was the first shift at which either Scally or Conolly had brushed in the road in question. . . . . Finds that [after two shots had been fired] the brushers commenced boring preparatory to firing a third shot, and were sitting on the top of the rubbish for that purpose, when the naked lamps that were placed on the rubbish behind Conolly ignited the fire-damp [which was known by the brushers exist], and caused an explosion, which threw Scally forward to the coal face and Conolly back upon the road, burning both men very severely. . . . . From these findings, in fact, finds, in point of law, first, that the said John Nish was, at the date of the accident, the agent of the Garden Pit, having, on behalf of the owners, the "care or direction thereof" in the sense of sections 7th and 22d of the Mines' Inspection Act; second, that the public prosecutor has *failed to prove* that the respondents have not kept up an adequate amount of ventilation in said coal pit to render noxious gases harmless, and the working places, levels, workings, and travelling roads "under ordinary circumstances," in a fit state for working and passing therein; therefore, assoilzies the respondents from the prayer of the petition, finds no expenses due to or by either party, and decerns.

At the Association of Engineers of Glasgow monthly meeting Mr. C. H. Reynolds, jun., read a long and interesting paper on the "Best means of obviating Strains peculiar to Ships," describing the longitudinal and vertical systems of building, both with cellular and H-beams, and showing their relative strengths. A lively discussion ensued, at the close of which a hearty vote of thanks was awarded Mr. Reynolds for his paper.

The prospects of Clyde shipbuilders at the beginning of the year are

very cheering. This week Messrs. Caird and Co., Greenock, are reported to have completed negociations for a contract to build and engine two large steam liners for the North German Lloyd's, for the trade between Bremen and Baltimore. The ships will be about 2300 tons and 350 horse power. Messrs. M'Nab and Co. are also reported to have contracted with a Liverpool firm to build a screw steamer of 1200 tons, which will be fitted with compound high and low-pressure engines. An iron barque, of 500 tons, has been launched for Doward, Dickson, and Co., of Liverpool, named the Advancement, for the South American trade.

REPORT FROM NORTHUMBERLAND AND DURHAM.

DEC. 17.—The state of the Coal Trade is far from satisfactory, particularly for steam coal in the northern part of the district, which is very dull indeed, and many men have been discharged lately in consequence; the gas and house coal trades are, although not very brisk, yet in a much better state. The return of the quantities of coal exported and sent coastwise during November in 1868 and 1867, shows that the exports have fallen off considerably, but it must be recollected that severe weather has lately much interfered with the trade. The accounts for the year will, however, be shortly published, when some accurate idea can be formed of the real state and progress of the trade.

The drainage scheme on the Tyne continues to progress, although somewhat slowly. A good Cornish engine has been started at Hebburn, which must prove very much superior in its working to the mode lately pursued in drawing the water by means of tubs. The engines at Wallsend are also working well, and are reducing the water. It is expected that coal will be got in some of these pits during the next year. The new winning at Throckley continues to progress most satisfactorily. The sinking has been completed now to a depth of 53 fathoms, and 9 fathoms further is to be sunk to the Splint seam. The engine seam has been passed through, which presents a good section here. A considerable quantity of water has been met with in the sinking, which has, of course, caused some delay in getting the shaft down. The estate comprises an area of 400 acres; and although it is pretty certain that about 90 old shafts have been sunk by the old men on the estate, yet this new sinking may be considered as winning a virgin estate, as the old shafts have only been sunk to the top seams. The bottom seams are, therefore, entire, and as they are of good section and quality, an excellent colliery may be expected to be shortly established.

It will be understood that this colliery is situated near the present western boundary of the coal field, about seven miles west from Newcastle. A communication by rail has been made to staiths on the Tyne from these works, but it is intended to form a connection with the North-Eastern Railway, and a bridge is to be erected over the Tyne river for this purpose. A ventilating-fan, manufactured by Black, Hawthorn, and Co., of Gateshead, is to be erected for ventilating the colliery. These ventilating-fans, whether the movement may ultimately prove for good or evil, are, it must be confessed, making rapid progress. Several are in course of construction by the same firm, and one of the number is especially worthy of notice—this is a large ventilating-fan, upon the Guibal principle, which is to be erected at a colliery near Ferry Hill, the property of Mr. Morrison, the present Mayor of Newcastle. The diameter is 36 feet, and for the purpose of driving it duplicate engines are provided—that is, a complete pair of engines are provided, only one being required to drive the fan, and should the engine driving the fan become deranged or broken at any time, the other engine can be coupled to the fan in a very short time, not more than five minutes being required, so that the ventilation may be said to be almost continuous under any circumstances that may arise. The success of the Guibal fan has certainly been great in this district of late, and although some powerful rivals have been introduced, the most remarkable being, perhaps, the Lemielle machine, yet the Guibal certainly appears to be the most simple and effective machine, so far as actual practical experience has yet proved this very important question.

Mr. Moses Mawson, late manager of the Parkside Mining Company's works, has been presented with a testimonial on his leaving the company's employ. Mr. Mawson has been connected with the Parkside Mining Company for about twelve or thirteen years, and during the last eight or nine years he has acted as manager of the works at Frizington. The Parkside Mining Company is one of the largest mining companies in the district, and at one time they were sending from their pits from 4000 to 5000 tons of iron per week. The presentation to Mr. Mawson was a watch, the inscription on which was—"Presented to Mr. Moses Mawson, by the workmen and a few friends, on the occasion of his resigning the management of the Parkside Mines, November, 1868." A tea service was also presented to Mrs. Mawson, which bore the same inscription.

GOLD IN SUTHERLAND.—Mr. Lawson Tait, of Wakefield, writes—It may interest your readers to know that the recently reported discovery of gold in the protogene rocks of Sutherland is not new. In the sixteenth century it was found in valuable quantities at Durness, on the north coast, and, together with the washings of the Enterkin, in Dumfrieshire, supplied the bullion for the Scottish money, and probably for the present Scottish crown, or part of it.

REPORT FROM MONMOUTH AND SOUTH WALES.

DEC. 17.—The Iron Trade of this district is quieter than it has been for several weeks past, and the orders coming to hand are not sufficient to replace those now being worked off. The reports, however, which come to hand characterise the trade as being in a healthy state, and the prospects of the new year are more cheering than the commencement of the one now closing. The home trade is also quieter, and, until the new year, it is not expected that engagements to any extent will be entered into. The demand from the American market keeps tolerably good, and last month the exports to that country amounted to 12,680 tons. There is an increase in the enquiries from New York, and it is expected that some large contracts will shortly be in the market, and the probability is that the makers of this district will come in for a fair share of them. Considerable quantities of railway iron will, it is expected, be required at the commencement of the new year by British America; and as the buyers of that country have a strong liking for South Wales rails, both as regards quality and price, and have hitherto largely patronised the makers in this district, there is no doubt they will continue to do so for the future. Orders from the East Indies have been augmented by the arrival of the last mail, and one or two vessels are now wanted at the local ports to convey iron to Bombay. To the continental markets several cargoes are about to be dispatched, and, should nothing arise to disturb the peace of Europe, transactions will no doubt steadily increase. There are but few enquiries for plates, and the mills, as a rule, are but indifferently employed. Pigs command a fair sale at full list quotations, but no heavy engagements are being entered into just at the present time. There is a sufficient demand for Tin-Plates to enable makers to keep their mills fairly employed; and, as the price of tin has again advanced, it is highly probable that makers at their next quarterly meeting will advance the price of plates.

Steam Coal proprietors and shippers experience great difficulty in obtaining tonnage, owing to the gales, which have prevailed at short intervals during the past week, preventing vessels arriving at or leaving the local ports. The sidings and tramways are crowded with loaded wagons, waiting to be taken to the coal tips for shipment; and the output at some of the collieries has been reduced, and in some parts of the district the men are not employed more than half time. The demand for the mail packet stations has not materially improved since last report, the companies' purchases continuing below the average. France purchased largely, and to the Mediterranean ports and other foreign markets the enquiries are about the average. Several large contracts will shortly be in the market, consequent upon the confirmation of the superiority of Welsh steam coal. For house coals the demand is inactive, and shipments are below the average, a large number of orders having, it is said, been transferred to other districts.

In last week's report it was stated that arrangements were in progress by the friends of the Right Hon. H. A. Bruce, late member for Merthyr, with a view of expressing their regret that Merthyr should have rejected him at the last election. At first it was intended to invite the honourable gentleman to a public banquet, but it has now been definately arranged to present him with a life-size portrait of himself and also that of his wife. Sir Francis Grant is to be entrusted with the commission, and Mr. Crawshay has headed the subscription list with a donation of 50*l*. A superb photograph has also been taken by Mr. Crawshay of the Hon. H. A. Bruce, and is being presented by the great ironmaster to all who plumped for the hon. gentleman at the last election. Mr. Bruce's expenses will probably be defrayed by public subscription.

Mr. W. H. Brewer, coroner, has instituted an enquiry at Risca, touching the death of Edward Beddon, donkey rider, who died from injuries received on the 2d instant. Mr. Lionel Brough, Government Inspector of Mines, said there were plenty of safety-holes or places of refuge in the Risca Black Vein slope; and so far the law was obeyed; and he was bound to say that no man in Wales exercised more care for the safety of the workmen than the manager, Mr. George James—that was, so far as the means at his disposal enabled him. But this being the throat, or main avenue into and out of all the working places, he must repeat an opinion which he had often expressed, that it was a most dangerous travelling way for workmen. The great cure for the danger, and for many other contingencies in the Black Vein Colliery, was a new pit. Mr. Brough added that Mr. James had been occupied for some time past in making an entirely new travelling road for men and horses, whereby this particular source of peril would be done away with, and it was high time, for since the accident to the deceased another man had been injured on the same slope. He had no doubt that Beddon's death was caused as described by Moses Crewe, by the roller throwing the trams off the line. A verdict of "Accidental Death" was returned.

Numerous accidents arise at collieries, not only in this district, but in almost every other, through men indulging in acts forbidden by the rules of the works. This week an accident of a serious nature happened to a man named James Crane, and his son, a lad about 14 years of age. They were indulging in the unforbidden practice of riding on the trams as they descended the incline at Cwmfrwdore, near Pontypool, when the chain broke, and they were hurled with lightning speed to the bottom. Although they were both severely injured about the head and back, they are expected to survive.

An inquest was held on the body of a collier named George Davies, who was employed at the New Pits, Tredegar. The deceased was severely injured some weeks ago by a lump of coal falling on him while at work, and he lingered in great agony until Tuesday last, when he expired. As no blame was attached to any person, the jury returned a verdict of "Accidental Death."

The workmen at the Caerleon Tin-Plate Works have presented their late manager, Mr. William Jones, with a handsome gold watch, bearing the following inscription:—"Presented to William Jones, Esq., by the workmen of Caerleon Tin-Plate Works, in token of their respect and esteem. July 18, 1868." For a period of over 30 years Mr. Jones managed the Caerleon Works, and it may be truly added that no manager was ever more beloved by his workmen, or had greater trust reposed in him by the proprietors. Mr. Jones is now manager of the Cwmbwrla Works, near Swansea.

The arrivals at Swansea include—the Dædalus, from Quebec, with a cargo of timber, for Elford, Williams, and Co.; Isole, from Bilboa, with 90 tons of zinc ore, for H. Bath and Son; Emily Waters, from Tocopilla, with 400 tons of copper regulus, and 287 tons of copper ore, for Richardson Brothers; Emily, from Bilboa, with 151 tons of iron ore, for W. H. Tucker; Rose and Mary, from Lisbon, with 90 tons of copper ore to order; Attamas, from Santone, with 143 tons of zinc ore to order; Louisa, from Buctouche, with a cargo of timber, for Richards, Power, and Co.; Pacific, from Chili, with 227 tons of bar copper, and 77 tons of copper regulus, 129 tons of copper ore, 51 tons of argentiferous lead, and 88 tons copper regulus, for H. Bath and Son, and 74 tons lead ore to order.

COAL-CUTTING MACHINES.—At the meeting of the South Wales Institute of Engineers the most important matter introduced was that which had reference to the coal-cutting machines. One had been invented by Mr. Chubb, of London, and the other by Mr. Grafton Jones, of Blaina. Mr. Chubb claims priority in the invention by reason of having entered a specification of his machine at the Patent Office before his adversary. The machines are constructed on the hydraulic principle; a steel cylinder, in the case of Mr. Jones, contains two rows of plungers—the water being forced between the plungers causes the machine to expand; while that of Mr. Chubb has only one row of plungers, causing the cylinders to expand instead of the plungers. Mr. Chubb has made some very successful experiments with his machine in the Powell Duffryn pits, and many of the engineers of the district say that the importance of his invention cannot be easily overrated. At the meeting to which we have referred, Mr. Chubb had no difficulty in bursting a trunk of a tree with his machine.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

DEC. 17.—The meetings on 'Change this week at Wolverhampton and Birmingham have, like those of some weeks past, been marked by the quietness which usually prevails before the close of the year. Orders come in rather quietly. On the whole, however, the works are in fair operation, and any falling off within the last month or six weeks is not greater than the season would naturally account for, and there is no good reason to abate the hope of a good trade in the spring. The Preliminary Meeting of the Ironmasters' Association takes place this day fortnight, the 31st inst., at Birmingham. There is no idea, so far as any indications can as yet point, of raising prices at the meeting, and it would be certainly prudent to wait, and see how far actual experience of improvement in the spring shall maintain the hopes many entertain of the trade of 1869. Everybody is interested in avoiding sudden changes, which subsequent experience may not justify. The iron trade of South Staffordshire has suffered most seriously many times from a hasty advance of prices and wages, which has been followed by depression, and that after much loss by masters and men, has only been recovered from by returning to the former, and sometimes to still lower rates. The whole question of raising the prices of iron by at least 60s. at a time, is well worthy of reconsideration. The evils which attend it have often been pointed out—the advantages are much more fancied than real.

The working of the Factories Acts and the Workshops Regulation Act in the iron and hardware districts of Staffordshire has often been commented upon in this letter. On the main question there is no dispute. The anticipations expressed in the *Mining Journal* before the Acts were passed had been abundantly fulfilled. The Factories Acts being limited, except as to a few trades, to works where 50 persons are employed, such places are placed under strict regulations, enforced by Government Inspectors. But these works are of necessity, for their size, conducted on a regular system, and least of all require to be regulated from outside. But the smaller works—and they constitute the great majority in Birmingham and South Staffordshire—are liable to less stringent regulations, which may be enforced by anybody—that is, are enforced by nobody. The result is that regulation is applied where it is least needed, and is withheld where there is a real necessity for it. Mr. Baker, the Government Inspector for the district, has felt this, and at a meeting of the Birmingham Chamber of Commerce, at Birmingham, on Tuesday, put before the meeting a proposal to extend the Factories Acts to all works where seven persons are employed—Is this number derived from the 7*l*. qualification of the Reform Bill of the Russell-Gladstone administration, and to assimilate the provisions of the two Acts? This is a step in the right direction, but why stop at seven? We must really come to a general law of some sort, and the special, and rather needlessly irritating, provisions of the Factories Acts be modified, so as to render them simple, easy to understand, and not difficult to comply with. Then let local inspectors be appointed, with a supervision by Government Inspectors, and let all be served alike. There is another proposal, and that is to do away with all legislative interference with the freedom of employment, and adopt a measure of compulsory education, extending to a certain age. Without giving any opinion as to these two propositions, let it be noted as a fact that public opinion is swaying towards compulsory education.

The Birmingham Chamber of Commerce, and especially Mr. Sampson S. Lloyd, Chairman of the Associated Chambers, and Mr. J. D. Goodman, of Birmingham, who visited Russia three years ago, have done good service by securing a revision of the Russian tariff. The reduction of duties is not great, except in some few instances; but it is stated that in carrying out the treaty the executive authorities will treat commerce with much greater favour. Does this mean that Russian officials will not exact bribes, or are presents to lower the scale of duties? It may be, however, observed that heavy iron, as armour-plates and rails, is to be admitted at much lower rates, and general cutlery is greatly reduced. A great agricultural country like Russia ought to adopt Free Trade; and would, were it not that the Government has always an eye on its military power, and wants to develope native industry, so as to render it independent of other nations' commerce, which may be interrupted by war.

"The South Staffordshire Mine Agents' Association *v.* the Government Inspector" is getting a rather tiresome cause, and it is a pity there is no court to determine the issue, and amerce one or the other in costs, if not a penalty, and so end the dispute. Again Mr. Henry Johnson seems to have worked himself up into a perfect state of Inspectophobia. He writes one day to the papers warning coalmasters and mine agents against an addition to the special rules, which he says "has been made by Mr. J. P. Baker, the Government Inspector, with the view of holding the masters and mine agents responsible for the duties of chartermasters." Now what are the facts? On the day this appeared he gets something under half a score of mine agents to meet at an inn in Dudley and endorse his letter to the papers. In certain cases there are no chartermasters, and in many such cases the owners who work the mines themselves, or by managers, have adopted an addition to the rule, which reads as follows:—"Note.—Where no charter is appointed the foregoing six rules—17, 18, 19, 20, 21, and 22, shall be held in all points to apply, and be binding upon the manager, or his deputy; and where no manager is appointed, the owner or his deputy shall be responsible under these six rules in all respects, and in the same manner, and to the same extent, as the manager or his deputy are made responsible."

No owner can become subject to this rule until he has considered it and practically until he has approved it. Can anyone reasonably object to it? Is not this sudden fright slightly ridiculous? An association of those concerned in the management of mining, with a view to improve mining operations, and to fulfil in a great degree the objects which Government inspection was intended to serve, by devising and recommending every practicable means of diminishing danger in mining, was urgently recommended in this letter long before the present association was formed. It is matter of regret that it has fallen into so narrow a groove, and has imbibed so strong a spirit of antagonism to the Government Inspector of the district.

Messrs. Claridge and North, ironfounders, &c., of the Phœnix Works, Bilston, have just cast for John Brown and Co., of Sheffield, a pair of rolls 15 ft. 6 in. long, 3 ft. 6 in. in diameter, and each of which will weigh 18 tons. These are said to be the largest pair of rolls ever cast, and are, of course, for rolling armour-plates, for the manufacture of which that firm has obtained so world-wide a fame.

At the Birmingham Natural History and Microscopical Society meeting, on Tuesday, Mr. J. W. Cotton read a very interesting paper "On the Mineralogy of the District." After referring to the general distribution of mineral substances, and to the fact that their abundance is usually proportinate to their adaptability to human wants, the author made some pertinent remarks as to the lamentable neglect of the science of mineralogy among persons whose daily occupation should indicate the primary importance of a knowledge of its principles, and urged the necessity of an extension of technical education in this direction. He then described *seriatim* the various minerals which occur in the district around Birmingham, which, in addition, of course, to the coal, iron, limestone, and fire-clay, pre-eminently important in respect of the manufacturing interests of this neighbourhood, comprise several less important, but scarcely less interesting, substances, such as the basalt of Rowley and Powk Hill, the veins of oxide of manganese recently discovered at Hockley and elsewhere; the breccia of Clent, the fibrous gypsum of Mouse Hill, &c. The paper was illustrated by numerous specimens derived from the district, and by comparative ones from other sources. Much interest was elicited by the announcement of the recent discovery of coal under the town of Rowley, and of the "Shallow" and "Deep" coals in the new sinkings at Hednesford, at the respective depths of 283 and 305 yards, and considerable discussion arose as to the true position of these beds in the South Stafford series.

With respect to the coal supply to be obtained from the Rowley Hills (the *Wolverhampton Chronicle* says)—the question now arises, how far is the coal likely to extend under the basalt or Rowley Ragstone? It is evident that the once molten material now forming the Ragstone was ejected from a subaerial or submarine volcano, through a crater, doubtless of comparatively small dimensions. The molten matter would flow over the surface of the surrounding ground, and would form on consolidation a large mass lying evenly upon those measures previously deposited, communicating with the central heated materials by means of a small opening. There would thus seem to be no reason to doubt the existence of good coal underneath the greater part of the area now forming the Rowley Hills. Of the igneous origin of the ragstone there can be no doubt; notwithstanding the assertion that a frog had been turned out of a lump of basalt, a few years ago. No scientific man for a moment believes such statements, however. It has been stated that because scientific men were in error about the existence of good coal at Hales Owen their views about the coal underneath the Rowley Rag are not reliable; but the state of things at Hales Owen and Wasell Grove appear to admit of a very simple explanation. It is well known that there are Silurian "banks" underlying the coal measures in the south-western part of the coal field. These banks are similar in character to the Wren's Nest and Castle Hill, Dudley, but are not so large. These banks have interfered with the depositing of coal, and it is thought by eminent geologists that there is a bank under the Hales Owen and Wasell Grove area, which has prevented anything but the later coal measures being deposited there.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

DEC. 17.—There is no alteration to be noticed in the state of the Iron and Coal Trades throughout Derbyshire, both of which are moderately good. There is not a very active demand for manufactured iron, but most of the works, which have been very quiet throughout the greater part of the year, are rather better off than they have been. Pipes and general castings are in moderately good request. The coal trade continues in about the same state as previously noticed, the mild character of the weather materially limiting the demand for household qualities. About an average tonnage is being forwarded to London from Clay Cross and the principal collieries. The Midland, now that its through route to the metropolis is completed, is carrying a very much large tonnage than it has ever done before, and from its advantageous position is likely to become the largest purveyor of coal of all the railways carrying to London. The new depôt at Whitechapel, just opened by the Great Eastern Railway Company, also promises to be of great benefit to the colliery proprietors of Derbyshire, in which county the minerals are being more rapidly opened out than in any other mining district in the kingdom. Gas coal is in fair request for the Midland and Western Counties, and there is a moderately good business being done by the colliers in the Burton-on-Trent district for Worcester, Gloucester, Cheltenham, &c., as well as for some large local establishments. There is no falling off in the demand for coke for the home furnaces and for those in the Wellingborough district.

Without being active, the iron works in South Yorkshire are kept well going, there being a fair out-put of rails, plates, and sheets, and a little more doing in pipes and general castings. The Coal Trade, now that the year has all but closed, is far from good. The tonnage going to London is by no means so large as it ought to be, and which is nearly, if not altogether, due to the present high rate by the Great Northern, which is the means of keeping many of the coalowners out of that market. Another attempt, it appears, is likely to be made to induce the Great Northern and the Manchester, Sheffield, and Lincolnshire companies to reduce their present rate. The present charges by both lines have seriously affected their income, and been most disadvantageous to coalmasters. It may be stated that the Great Northern only last month carried 18,000 tons less than in October, and 32,565 tons less than in November, 1867, being a loss to the revenue of the company between the two periods named of upwards of 11,000*l*. It will, therefore, be to the advantage of both lines to so reduce the rates as to put coalowners in a position to compete with those in Derbyshire, and who have a rate of 1s. to 2s. per ton less than is paid at present from Yorkshire to London.

The refusal of the coalmasters of South Yorkshire to concede the increase of 5 per cent. on the wages of the miners appears likely to lead to some complications. In the present state of the trade, which is as bad as ever it has been at this season of the year, and with a rate which is nearly prohibitory, so far as London is concerned, the demand from the first was plainly one that could not be granted, and it only requires the workmen to take a fair and sensible view of the present condition of the trade to see that the masters are not in a position to concede the increase. There are, however, men amongst the mining body who will not listen to reason, and, too often, the counsel of such is taken in preference to that of the quiet thinkers, whose advice, if taken, will assuredly be in favour of not making the present state of things worse than they are. However, a decision is to be come to at the meeting of delegates on Monday next, and it is to be hoped that, in the interest of the workmen themselves, it will be in favour of accepting the late decision of the coalowners.

In the large collieries laid out by colliery engineers of great experience, and with much scientific knowledge, the collier is relieved from the pressing sense of danger that formerly quickened his observation of atmospheric changes. He descends to his place of work with very little apprehension in states of the weather most likely to be accompanied by escape of gas, and he does so from having satisfied himself that the ascending current promoted by the upcast furnace is such that, with proper underground arrangements, he can always rely on a good supply of fresh air to dilute and sweep away any gas released by fluctuations of pressure or temperature. How far the collier and the mine owner are warranted in trusting to the efficacy of good ventilation, coupled with the maintenance of sound discipline, is manifested by the fact that, with the great barometric oscillations of the last few weeks, we have not had an unusual number of explosions; indeed, the terrible calamity at Hindley Green is, I believe, the only one recorded, and, pending its legal investigation, I abstain from any comment upon it. There are some 3200 coal mines in Great Britain, and of these I apprehend that a fifth at least may be regarded as more or less fiery. Then, what are the actual number of explosions? Upon referring to some of the Government Inspectors' reports for 1867, I find that in Yorkshire, with its 434 collieries, there was but one life lost by explosion; South Wales, with 329 collieries, had but four explosions, though by one of these, at Ferndale, 178 lives were sacrificed; in the Midland district—Derby, Notting-

ham, Leicester, and Warwick—there were but two explosions, and neither was properly accidental, for both occurred from the use of nakid lights. I will not needlessly occupy your space by extending these enumerations, but simply remark upon them that, when one goes carefully through the sad catalogue for any given year, it is obvious that, eliminating those due to the reckless use of naked lights, and to the neglect of precautions the necessity for which every sensible collier acknowledges, the number of explosions that may be ascribed to sudden, unexpected outbursts of fire-damp is very small; unhappily, their appalling fatality is in a terrible inverse ratio to their number. In presence of these facts, I venture to think that with all proper appliances for ventilation, especially in respect to the laying out and working the mine; with equal attention to stoppings, doors, and keeping the ways all clear and open; with vigilant examination of dead places, and old workings or goaves; the exclusive use of really locked safety-lamps, and those of the best construction for giving a good light and resisting the passage of flame; and by a discipline strict without being harrassing, there is much to encourage the hope that we may ultimately be spared the recurrence of these great calamities. In the lapse of a few years, when primary education has been carried out more thoroughly, and a basis laid for such secondary instruction as should be attainable by any working man, I think it will be possible to have in every large mine several colliers sufficiently informed as to the nature of the first warning of danger, and the proper steps to be taken by the men below to avert explosions, and to whom may be entrusted the responsibility of a general supervision of divisions of the mine, and the authority to require submission to any order given in a case of emergency. In most cases this duty need not interfere with a man doing his ordinary work in the pit. With respect to the barometer, it is now not unusual to have one at a colliery, and to have its readings registered; but I fear that very few of the underlookers or fireman understand clearly what it is the instrument records. I know, however, that at some collieries it is both observed and understood, and its indications attended to. The storm warnings, too, instituted by the late Admiral Fitzroy are regularly telegraphed to some collieries; I am not aware to how many. I should like to see two changes made in the barometers supplied to collieries—one to render them less mendacious, the other to make the information they give more obvious. I would expunge the misleading words "rain," "change," "dry," "stormy," &c., from the face of the instrument; for, as the collier will often find the weather dry when, according to the barometer, it ought to be wet, and no breath of air astir when a gale should be blowing, these discrepancies are very apt to excite a distrust of the instrument altogether. For these misleading words I would substitute the equivalents of pressure in pounds on the inch or foot for each inch of altitude of the mercury; it would then be seen that for each fall of an inch in the column there would be a decrease of pressure of 70·9 lbs. on the square foot. A mine thermometer might also indicate the expansion in bulk of any unit of air or gas for each degree of temperature.

THE HINDLEY GREEN COLLIERY EXPLOSION.—But little has been elicited from the witnesses examined before the Coroner calculated to throw any light upon the true cause of the explosion. The mine is described as having been much in the same state on the day preceding the explosion as for many months previously; there was a strong current of air passing at the time of the explosion, and in the dip workings no gas showed at all. The lamps were locked, and handed to the men (by a man appointed for the purpose) before they went down. But the escape of gas was audible in four of the down-brow places, and the gas in the Arley Mine is very sharp, and quickly fills a lamp. If a man lost his light he could have it re-lighted by the fireman, and it appeared that although the general practice was to re-light lamps only at the shaft, there was some doubt as to whether the fireman did not, upon one occasion at least, re-light at the shunt. Some interesting evidence was given by Mr. Gilroy, mining engineer to the Ince Hall Coal Company. In the course of his examination of the pit Mr. Gilroy found an exploded can, which had contained gunpowder, and he gave it as his opinion that the force of the explosion had been greatly increased by the powder, and that it had probably preceded the explosion of gas, and really caused the disaster. Mr. Gilroy depreciated the value of barometers in pits, stating that gas is a much better barometer than any the mathematicians can construct, and will show itself hours before the barometer has given any alarming indications. It must, however, be gratifying to the manager to find that the evidence of three impartial witnesses, the Government Inspectors and Mr. Pickard, the miners' agent, throws no great blame upon him.—Mr. PICKARD was of opinion, on the evidence, that gas had not been suddenly given off from either roof, warrant, or floor, although from his own examination he should have thought the cracks would give off gas. The quantity of air supplied to the mine would be barely sufficient to keep the working places clear, especially as there were four or five of them which gave off gas freely. Although there were double doors there was still a considerable loss of ventilation, because there were so many cloths used. The men would have observed the gas had they been cautious, but he doubted whether they had been cautious enough, after what had taken place on the previous day. The men had worked for an hour and an half before the explosion took place, but he thought the gas had come upon them imperceptibly. He believed that gas had caused the cracks in the floor, but that the ventilation had carried away that gas. He believed that the ventilation had broken down in an ordinary way, unknown either to the men or the officials, either from a fall of the roof or from cloths falling. The fall of the roof, causing the destruction of a door, was a purely accidental circumstance, but one of frequent occurrence.—Mr. HIGSON considered bratticing had been used to too great an extent, and he strongly condemned the practice of driving so far behind brattice, a practice which had led to many casualties. It would be better to drive double air-roads, and unite them when work was commenced. He thought the colliery managers had taken all the care they could with the machinery at their disposal. He believed Mr. Southworth to be industrious and trustworthy, but he (Mr. Higson) did not approve of the system of ventilation, and he hoped Mr. Southworth would alter it. He thought 20 yards was a sufficient distance of bratticing. There was a growing practice to carry it further, but that was a great mistake.—Mr. DICKINSON concurred generally with the evidence given as to the burning, and all the facts had been laid clearly before the jury. He had not met with a particle of accumulated gas on either of his inspections of the mine, and from the unanimity of the testimony they were bound to conclude that something unusual had happened with respect to the gas. The ventilation in the west dip workings had been run too closs to allow for emergencies. The traces of burning which were left indicated to his mind that the air had been laden with gas, and that the pure nature of the gas, being such as to give little indication by "cap," had prevented the laden state of the air from being noticed. In that state of the air some additional quantity of gas had come from somewhere. The barometer having been rising for 18 hours before the explosion (during which time it had risen about two-tenths of an inch) did not account for the increased quantity of gas. In opening out such mines in a field which had not been previously tapped of its gas it was very desirable that fewer openings should be made at first than had been done in this instance. There should be less drift work done. In nearly all the mines in which great explosions have taken place in Lancashire a similar system had been pursued, whilst those collieries where the levels had been first driven to extremities had escaped almost with immunity. The ventilation of this dip split depends upon these doors in the level and upon the cloths. There is nothing to separate the dip west split from the split that went along the high side of it towards the high workings of the mine; and as these dip workings have been advancing the drag upon them would become greater, and, consequently, less air would be daily going into them as the workings extended, and so gradually becoming weaker and weaker.—The Coroner having summed up, the jury returned the following verdict:—"The jury feel convinced that an awful explosion has taken place, through the agency of which 62 human beings have lost their lives. How, or by what means it was caused, after the evidence produced, we are not prepared to say, as in all probability those who could have furnished the requisite information, along with others, have perished." They added that they thought the use of blasting-powder should be discontinued, and that the air supply to the west workings should be increased as soon as possible.

FOREIGN MINES

CHONTALES GOLD AND SILVER MINING COMPANY.—T. Belt, Nov. 6:—Consuelo and Estrella Mines: No. 1 stope, in the back of No. 3 level, east of No. 2 shaft, has been stoped 17½ varas; lode 3 ft. wide, and at present worth 1½ oz. of gold per ton. No. 2 stope, in the back of No. 3 level, east of No. 3 pass, has been stoped 6½ varas; lode 3 ft. wide, worth ½ oz. of gold per ton. No. 3 stope, in the back of No. 3 level, has been stoped 10 varas; lode 3 ft. wide, worth 7 dwts. of gold per ton. No. 1 stope, in the back of No. 2 level, east of the No. 2 shaft, has been stoped 36 varas: lode 3½ ft. wide, worth ¾ oz. of gold per ton. No. 2 stope, in back of No. 2 level, east of No. 2 shaft, has been stoped 8 varas; the lode is 3 ft. wide, worth ¼ oz. of gold per ton at present, but during the month we took out 6 cwts. of ore, which yielded 6 ozs. of melted gold. A stope in back of No. 2 level, east of No. 1 shaft, has been stoped 22 varas; the lode is 3½ ft. wide, worth 3 dwts. of gold per ton. A stope in back of No. 4 deep adit level has been stoped 13 varas; the lode is 6 ft. wide, worth 3 dwts. of gold per ton. Driving No. 4 deep adit level east on the course of the lode 10½ varas, worth from 2 to 5 dwts. of gold per ton, the lode varying from 5 to 7 feet wide; this lode, though large and kindly, has not turned up to my expectations as yet, but I have every confidence that we shall meet some orey ground further east, as the back of No. 3 level has yielded very good ore for upwards of 12 fathoms in length, which has been taken away during this month. At Cook's shaft only 2 varas have been sunk this month, in consequence of so much water; for a time it will be suspended. We have driven a cross-cut south to intersect the lode 7 varas, but the lode is disordered and very poor at this point. Several repairs have been done to our tramways, which are now in good working order. I sent to mill from the mines 500 tons of qaartz, which I estimate at ½ oz. of gold per ton; also 295 tons from old heap, which I estimate at 4 dwts. per ton. Altogether I estimate about 309 ozs. of melted gold. Our mi e: are looking very favourable at present for a good supply of ore in the ensuing month.

San Antonio: During the past month the working operations both in the mine and at surface have been carried on satisfactorily. The San Antonio shaft has been driven through at the intermediate level. The shaft below this level has been secured, which was in a very bad state, pipes have been put in the shaft, and the quartz, which came out of the winze which has been sunk in the bottom of No. 2 level, has been thrown down, and some of it brought to the mills yielding for gold about 4 dwts. per ton of quartz. The old San Antonio shaft has been re-sunk 6 varas, and No. 2 level driven west from this shaft 7 varas. I have only a branch of the lode in this level; I intend to drive this level in a straight direction until I reach the old footway shaft, consequently we have no quartz of any value from here as yet. The San Antonio deep adit level has been driven west during the past fortnight 3½ varas; the lode at present is 7 ft. wide, and not yielding quartz to value. A stope in the back of the deep adit, in this place, has been commenced (last week) west of San Antonio's shaft, and has been stoped 5½ varas, and quartz sent to mill yielding for gold 1 oz. per ton of quartz. I am having a part of the deep adit level, west of shaft, re-timbered with good substantial "nispero" timber previous to stoping any more, as the old timber was of a bad quality, and not fit for stoping; I hope to commence stoping again in the course of a day or two. The San Benito lode has been prospected at surface, west from San Benito Mine, towards west San Benito Mine, about 340 varas: I believe this to be the same lode stated by you; it has been traced almost down to the river. I obtained samples from the pits sunk at surface on this lode, and all produce gold of a low average. During the past month I have sent to mill from San Antonio Mine and from refuse 236 tons of quartz of an average yield of 6 dwts. of gold per ton of quartz.—WILLIAM MARTIN.

Santo Domingo, San Benito, and Trinidad Mines: During the past month the working operations have been carried on, both in the mine and at surface, with all possible speed. The No. 3 level in this part has been driven east through the old mine 13 varas, yielding 10 dwts. of gold per ton of quartz. No. 1 stope, in back of No. 3 level, has been stoped 4¼ varas, yielding 4 dwts. of gold per ton. No. 2 stope, in back of No. 3 level, has been stoped 5 varas, yielding 4 dwts. of gold per ton. No. 3 stope, in the back of No. 3 level, has been stoped 10 varas, yielding 5 dwts. of gold per ton. No. 4 stope, in back of No. 3 level, has been stoped 2 varas, yielding 4 dwts. of gold per ton. No. 2 stope, in back of No. 1 level, west of Palma's shaft, has been stoped 4 varas; lode 2 ft. 6 in. wide, yielding 4 dwts. of gold per ton. No. 2 stope, in No. 1 level, has been stoped 6 varas, yielding 4 dwts. of gold per ton. No. 1 stope, in the back of No. 1 level, west of St. Domingo shaft, has been stoped 7 varas; lode 3 ft. wide, yielding 4 dwts. of gold per ton. No. 2 stope, in back of No. 1 level, west of St. Domingo shaft, has been stoped 9 varas; lode 3 ft. wide, yielding 3 dwts. of gold per ton of quartz. A rise has been made in the back of this stope through to surface; distance risen, 9 varas; the quartz which came out of the rise is poor, not yielding sufficient gold to value. The deep adit level at West San Benito Mine has been driven 17½ varas; lode 5 ft. wide, producing a little gold, but not sufficient to value. I have also commenced to drive a deep adit level at Trinidad Mine, which has been driven 8 varas, yielding 2 dwts. of gold per ton; the lode in this level appears to be improving daily, and I have no doubt will soon produce some good saving quartz. The tunnel for West San Benito is completed, but owing to the decrease of native labourers I have not been able to get on as fast as I anticipated. I am very sorry to state that I shall suffer from the decrease of the aforesaid labour, not having at the present moment sufficient men to carry on the work at the speed I should like. During the past month I have sent to the mill 268 tons of quartz, yielding an average of 9 dwts. per ton of quartz.—WILLIAM EVANS.

Stamping and Grinding: The stamps have been regularly supplied with ores during the past month, but of a much harder nature, which will account for our not having stamped out so much as the previous months. The duty done through the time worked is about 2 tons 2 cwts. per hour, by the three batteries. The quantity of ore crushed was 1157 tons, which produced 405 ozs. of gold: cost per ton for stamping 85 cents. The arrastra mill has only been working occasionally during the past month, in consequence of the scarcity of quartz, but with good drag-stones we have succeeded in grinding about 15 cwts. per hour by the two cups, the ores having been obtained from Consuelo, and of a soft nature. Quantity of ore ground in the arrastres 142 tons, which produced 45 ozs. of gold; cost per ton for grinding $1·55.

JAVALI.—The advices are dated November 8. The small turbine was still working well; 18 stamps had run 23 days 5 hours, crushing 1000 tons. The remittance is 281¼ ozs., valued at $3970. The cost from Oct. 8 to Nov. 8 was $2200. The stone crusher had been at work since Nov. 3, and was doing admirable service, and would save a large monthly cost in calcining and spalling. Five additional amalgamators, to work up the tailings, had been ordered from San Francisco. The underground workings were approaching completion, and all carrying of ore in bags had already ceased. The ore crushed was not rich, but being obliged to be got rid of, was taken to the mills. The next remittance was expected to be from ore taken from the richer workings. The health of the mine was excellent, and labour was abundant.

LINARES.—Dec. 5: West of Engine-shaft: In the 110 fathom level, driving west of San Tomas engine-shaft, the lode contains spots of lead, but not enough to value. The 85, west of Warne's engine-shaft, yields ½ ton of ore per fathom; the lode is large and strong, letting out much water. The lode in the 85, east of Warne's shaft, also produces ½ ton of ore per fathom; the ground is hard for driving. In the 45, east of San Francisco shaft, the lode is compact and solid, yielding 2 tons of ore per fathom. The 31, east of San Francisco shaft, produces 1½ ton per fathom; this is a very promising lode, and opening good tribute ground.—East of Engine-shaft: The lode in the 95, east of Taylor's cross-cut, has greatly improved, and is now worth 2 tons of ore per fathom. The 95, east of Taylor's shaft, opened some good ore ground last month, but has fallen off in value since.—Shafts and Winzes: San Francisco shaft, sinking below the 31 fm. level, yields ½ ton per fathom; the lode in this shaft is getting more regular, and better defined. In No. 168 winze, below the 85, the lode is small, yielding ½ ton of ore per fathom. The lode in No. 162 winze, below the 31, is gradually improving, and produces ¾ ton of ore per fathom. In No. 164 winze, below the 25, the lode is scarcely so productive as it was, now worth only ½ ton per fathom. The stopes yielded a very good quantity of mineral in the past month, and are looking favourable for December, so that we are able to estimate the returns for this month at 275 tons. The machinery is in very good condition, and working economically. The general surface work is going on very regularly.—Quinientos Mine: In the 32 fm. level, west of Taylor's engine-shaft, the lode is unproductive at present, but there is a great deal of water issuing from the end. The lode in the 32, east of Taylor's engine-shaft, has failed during the past fortnight. The 32, east of Addis's shaft, opened good ore ground in the early part of last month, but at present the lode is poor. In the 32, west of Addis's shaft, the lode is of a kindly appearance, but is not producing lead of any value.—Shafts: In Taylor's engine-shaft, sinking below the 32 fm. level, the men are making good progress. We have now a good party of men in Cox's shaft, sinking below surface, and hope to get it down to the 32 fathom level by the end of next month.

ALAMILLOS.—Dec. 5: In the 4th level, east of La Magdalena shaft, the lode yields ¾ ton of ore per fathom; this driving opened good tribute ground in the past month, but at present the lode is not so good. In the 5th level, east of La Magdalena shaft, a great length of valuable ore ground was driven through last month, but the lode is small just now, and yields ¾ ton of ore per fathom. The lode in the 5th level, west of La Magdalena shaft, is considerably disarranged. The 5th level, east of Taylor's shaft, yields ½ ton of ore per fathom; a long measurement was made here last month in a good lode, which was open and vughy. In the 5th level, west of Taylor's shaft, the ground is hard for driving. The lode in the 4th level, west of San Audriano shaft, is small, and of very little value, yielding ½ ton per fathom only. In the 3d level, west of San Yago shaft, the lode is very wide, and lets out much water, which will, no doubt, drain Cox's shaft shortly. The 2d level, east of Judd's shaft, produces ½ ton of ore per fathom; the lode is wide, strong, and of a promising appearance. In the 3d level, east of Crosby's shaft, the lode is small and poor. The 3d level, west of Perez' winze, produces very good stones of ore. The lode in the 2d level, east of Henty's shaft, is compact, and of a good appearance, producing 1 ton of ore per fathom. The 2d level, west of Henty's shaft, yields 2½ tons of ore per fathom; this is opening very good tribute ground. The lode in the 2d level, west of Morris's shaft, has failed, being now small and poor.—Shafts and Winzes: Taylor's engine-shaft, sinking below the 5th level, is already deep enough for a 6th level; the sinking will be continued this month for a fork. San Enrique shaft, below the 3d level, is being sunk at a satisfactory rate. San Victor shaft, below the first level, yields 1 ton of ore per fathom; we are getting on well with this work, the water being easily kept out at present. In Tomas' winze, below the 4th level, the lode, which yields ¾ ton of ore per fathom, is rather small, and the ground is hard for sinking. Agueda's winze, below the 4th level, yields 2 tons of ore per fathom; the lode is large, and spotted with lead throughout. Prim's winze, below the 4th level, produces ¾ ton of ore per fathom; in this winze the lode is very open and vughy, with good boulders of lead. The stopes yielded the computed quantity of ore last month, without undergoing much alteration as to value, and we are again enabled to estimate the monthly raisings at 250 tons. The machinery is in very good condition, and, with all other surface work, proceeding very regularly.

PONTGIBAUD.—W. H. Rickard, Dec. 2: Roure: The ground at Richards's engine-shaft, below the 125, has required new timberwork during the past month, which has hindered the sinking; we are now down 22 metres. The 80 metre level cross-cut west is in hard, sparry ground. The 60 south yields 1 ton of ore per fathom. The winze in the bottom of the 40 yields ¾ ton of ore per fathom. The 20 cross-cut is without change. The stollen south of whimshaft has entered a large lode, composed of quartz and arsenical mundic, letting out much water, but without any lead ore. There is no change in either of the two stollen cross-cuts west. We have now working in this mine nine stopes—one in the back of the 100 north, two in the back of the 80, north of Richards's shaft, three in back of the 60, south of Agnes' shaft, one in back of the 40, and two in back of the 20, south of same shaft; also 18 tribute pitches, altogether yielding a pretty good supply of rather coarse ore-stuff.—La Grange: The summen at Nosky's shaft have been occupied repairing the timberwork from the 80 to the 100 during the month, and will now begin cutting the plat at the last-named level. The 80 metre level, north of shaft, yields ½ ton of ore per fathom. The 60 metre level, in the same direction, yields a little low-quality work. The stope in back of the 80 yields a fair quantity of ore-stuff. The tribute pitches are much the same in quality as usual.—Mioche: The cross-cut in the adit north is without change. We have set to drive north on the part of the lode left at the entrance of this cross-cut, which appears, from the look of a strong back of a lode at surface, to form a junction with it in about 90 metres driving. We have met with no lode in the cross-cut at Bouzarat, between this mine and La Brousse.—La Brousse: We have intersected the lode at the 100 metre level cross-cut at Basset's shaft, which yields good stones of ore, having very much the same appearance as at the 80, over this point. The 80 metre level south, on the western part of the lode, yields 2 tons of ore per fathom. The same level, on the eastern part, yields ½ ton per fathom. The 60 south opens tribute ground, worth also about ½ ton per fathom. The 40 south is in soft, poor ground, as is also the 40 north and the 20 south. The 20 metre level, south of western shaft, is in a lode 3 ft. wide, 1 ft. of which is composed of quartz, spotted with mundic. We are now erecting a horse-whim on this shaft. Our 11 tribute pitches in this mine yield well.—Pranal: The 70 cross-cut west continues in hard ground. The lode in the 50 north appears to be splitting into several branches, yielding together 2 tons of ore fathom. The 50, south of cross-cut, yields ¾ ton per fathom. The 30 north 1 ton. The same level south yields saving work. The 8, north and south, yield ½ ton each per fathom. Our tribute pitches continue to yield well. Our sampling has amounted to 267 tons.

FORTUNA.—Dec. 5: Canada Incosa Mine: The 110, driving east of O'Shea's shaft, yields ½ ton of ore per fm.; the lode is improving, and produces good stones of ore from the upper part of the lode. The lode in the 100, west of O'Shea's engine-shaft, is divided into sundry small branches, producing ½ ton of ore per fm. The lode in the 90, west of Judd's shaft, is compact and solid, producing 2 tons of ore per fm. In the 80, west of Judd's shaft, the lode is small and poor. The ground in the 80, south of Henty's shaft, is rather hard for driving. In the 70, east of Carro's shaft, the lode has greatly improved, and now yields 2 tons of ore per fm.—Shafts and Winzes: Henty's shaft, sinking below the 90, is completed to the 100, and the sinking to the 110 commenced, which work will be pushed on as fast as possible. Lowndes' shaft, below the 70, produces 1¼ ton of ore per fm.; the lode has improved in this sink, and has a very promising appearance. Dias' winze, below the 55, yields 2 tons of ore per fathom; we expect to hole this winze to the 70 in a few days. Antonio's winze, below the 90, is deep enough for the 100, and will be holed by that level reaching it shortly.—Los Salidos Mine: The 100, west of Morris's engine-shaft, yields ½ ton of ore per fm.; the lode is declining in value, but is moderately easy for driving. The lode in the 75, west of Buenos Amigos shaft, continues in two distinct parts, each very compact and good, combined, yielding 2½ tons per fm. In the 100, east of Morris's engine-shaft, the lode at present is disarranged and unproductive. The 90, east of Cox's shaft, yields ¾ ton of ore per fm.; there is now a good lode in the bottom of the end, but small in the upper part. The lode in the 75, east of San Pablos shaft, is large and strong, of a kindly appearance, and yielding 1½ ton of ore per fm.—Shafts and Winzes: Buenos Amigos shaft, below the 90, produces 1½ ton of ore per fm.; the men did a good month's work in this shaft, and are going on very regularly. Tomas' winze, below the 65, yields 1¼ ton of ore per fm.; the ground is hard for sinking, with a good lode in one end of the winze. Ramon's winze, below the 75, is worth 1½ ton of ore per fathom; the lode is changeable, the rich part being confined to the western end of it. In Prim's winze, below the 90, the lode, which has been very rich until the last few days, is now worth 1¼ ton of ore per fm. The stopes have not undergone any unfavourable change in the past month, and are looking moderately well for the present one. The machinery and all other surface works are going on regularly. We estimate the raisings for December at 350 tons.

LUSITANIAN.—Dec. 9: Palhal Mine: The lode in Taylor's engine-shaft, sinking below the 120, is worth 2 tons of ore per fathom. In the winze No. 77, below the 110, east of Taylor's, and the stope above the 110, west of Taylor's, the lode is worth 5 tons per fathom.—Basto's Lode: The lode in the 120, east of Taylor's, is worth 1 ton per fathom; and seeing we have such a good lode in the winze coming down on it, we have every hope of an improvement shortly. The 120, west of Taylor's, yields 2 tons of ore per fathom. The lode in the 110, east of above shaft, is 2 feet wide, composed of quartz and stones of ore. In the 110, west of same shaft, the lode is 1½ foot wide, composed of quartz. The 110, east of River shaft, is suspended, the lode being 1 foot wide, composed of dry flookan. The lode in the 90, east of River shaft, is of a similar nature. In the 70, east of River shaft, the lode is 1½ ft. wide, composed of flookan and quartz. The lode in the 38, west of Perez' shaft, is 8 inches wide, composed of flookan.—Levels on Branch: The lode in the 8, west of Perez' shaft, is worth 1 ton of ore per fathom. The 8, east of winze No. 75, west of Perez' shaft, yields ½ ton per fathom. The adit, west of Perez' shaft, also produces ½ ton of ore per fathom. The adit west of Perez shaft, on a branch going off towards the south from the little slide, yields good stones of ore.—Ponto Lode: In the 28, east of the slide, the lode is 8 in. wide, composed of quartz, impregnated with lead and mundic. No change has taken place in either of the three cross-cuts. The stopes are looking just as usual.—Carvalhal Mine: The lode in the incline shaft, sinking below the 40, is valueless.—Great Lode: The 40, east of incline shaft, yields ½ ton of lead and blende mixed. In the 30, east of incline shaft, the lode is composed of quartz, intermixed with country, and is very wet. The lode in the 20, east of incline shaft, is split into a number of branches, all of which contain lead, and together are worth ½ ton of ore per fathom. The 10, east of above shaft, also yields ½ ton of ore per fathom. The 40 and the 30 fathom levels, west of incline shaft, on the caunter lode, are suspended, and the men are employed in stoping.

WEST CANADA.—F. Williams, Nov. 26: Huron Copper Bay: The stope below the 20, east of Stephens's winze, is at the present time poor, but we have a good lode a few fathoms ahead of us; it will yield 1½ ton of ore per fm. The stope below the 20 is now worth 3 tons of ore per fathom. The stope in the bottom of the 20 east is worth 3½ tons per fathom. The stope in bottom of the 35, east of this shaft, is worth 2 tons per fathom. The stopes in the bottom of the 20, east and west of Powell's winze, on the Fire lode, are worth 1¾ ton of ore per fathom. The lode in the 60, west of Bray's engine-shaft, is still poor; in fact, it looks more unkindly than when last reported on, and we are beginning to be afraid that we shall have a poor piece of ground to drive through to hole to Palmer's winze. This winze, at the present time, is also poor, the lode being very much disordered, and presenting very much the same appearance as the lode in the 60. The stope in the back of the 35, east of Bray's engine-shaft, is worth 3 tons of ore per fathom. The winze sinking below the 35, east of this shaft, has improved of late, and is now worth 2¼ tons of ore per fathom.—Wellington Mine: The stope in the bottom of the 24, east of Mitchell's shaft, is worth 1¾ ton of ore per fathom. The stope in the bottom of the 36, east of this shaft, will yield 2 tons of ore per fathom. The 36, east of this shaft, is worth 1½ ton of ore per fathom. The lode at Mitchell's shaft is large and promising in appearance, but still continues poor. We are making good progress in sinking this shaft. The stope west of Rowe's shaft looks well, and will now yield 2½ tons of ore per fathom. The stope in back, west of this shaft, is also improved of late, and will now yield 1¾ ton of ore per fathom. I am happy to inform you that everything throughout the mine is going on well, and that we are getting things pretty well prepared for the winter.

IMPERIAL SILVER QUARRIES.—Lewis Chalmers, Nov. 9: Nine feet of tunnel were completed last week. The rock is very hard on drills, and blasts badly. When am I to expect Penrice's machine? I am in hopes that the outside crust of this felspathic formation, as is generally the case, is harder than the general body, and that I shall make better progress this week.

TO CAPITALISTS.

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MR. GEO. A. H. POTTER has FOR SALE, BY PRIVATE TREATY, FOUR VALUABLE SLATE QUARRIES, called

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SORTRIDGE CONSOLS MINING COMPANY.—The Committee of Management hereby give notice that they will RECEIVE TENDERS at the offices of the company, as under, until Tuesday, the 29th instant, from PARTIES who may be willing TO PURCHASE the WHOLE or any PART of the STEAM ENGINES and other MACHINERY and MATERIALS, now on the

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The MACHINERY includes a 40 in. cylinder PUMPING ENGINE, with ONE BOILER.

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Inventories may be seen at the mine, and at the London office.

2, Church-court, Clement's-lane, Lombard-street, London, E.C., December 11, 1868. DAVID COHEN, Purser and Secretary. 69

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Plans and sections, showing the works already done in the property, may be seen and examined; and further information may be obtained on application to Mr. J. HAWLEY EDWARDS, Solicitor, Shrewsbury.—Dec. 15, 1868. 70

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Proposals, in writing, to be sent not later than the 3d January next, to Mr. MCKELVIE, Solicitor, Whitehaven, at whose office a plan of the royalty may be seen.—Whitehaven, Dec. 9, 1868. 72

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STAFFORDSHIRE WHEEL AND AXLE COMPANY (LIMITED AND REDUCED),

MANUFACTURERS of RAILWAY CARRIAGE, WAGON, and CONTRACTORS' WHEELS and AXLES, and other IRONWORK used in the CONSTRUCTION of RAILWAY ROLLING STOCK.
OFFICES AND WORKS,
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LONDON OFFICE,—118, CANNON STREET, E.C. 92

TO MANUFACTURERS OF YELLOW METAL, MERCHANTS, AND OTHERS.

CAUTION.

WHEREAS, it has recently come to the knowledge of the directors of ELLIOTT'S PATENT SHEATHING AND METAL COMPANY (LIMITED) that quantities of YELLOW METAL made by other Manufacturers have been exported to India and elsewhere, bearing a FRAUDULENT IMITATION of the exclusive BRAND or TRADE MARK of the company for Metal of that description—namely, a representation of a Rupee, with or without the word "soft" printed thereunder,

NOTICE IS HEREBY GIVEN, that in case any manufacturer, or other person, shall STAMP, IMPRESS, or AFFIX to or on any YELLOW METAL not made by the said company, the said BRAND or TRADE MARK, or any colourable imitation thereof,—or in case any merchant or other person shall EXPORT or SELL any such Yellow Metal so marked as aforesaid,—PROCEEDINGS will forthwith be COMMENCED against such manufacturer, merchant, or other persons, to RESTRAIN him or them from such wrongful acts as aforesaid, and RECOVER DAMAGES in respect thereof.

RYLAND AND MARTINEAU, Solicitors to the said Company.
Birmingham, August, 1868. 93

IN THE TOWER FOUNDRY IS THE TYNE DEPOT FOR MACHINERY of every description for WOOD and IRONSTONE, CORN-CRUSHING, and PUG MILLS. Also, AGRICULTURAL IMPLEMENTS.

PROPRIETOR,—G. HARLE, JUN.,
No. 49, MAPLE STREET, NEWCASTLE.
PURCHASERS of PORTABLE ENGINES and STEAM CRANES will do well to ask G. HARLE'S price for the same. 94

WILLIAM HANN AND SON beg to offer to SUPPLY COLLIERY OWNERS, and the public generally, with their PATENT SAFETY LAMPS,

Which have been proved INEXPLOSIVE in the highest obtainable current of gas, of 48 ft. per second. No. 1 weighs 24 ozs., is simple in its construction, burns with a steady and nearly uniform flame in moderate currents, gives a good light, and is in every respect a practicable lamp. Price, 9s. each; if in quantities of a dozen or upwards, 8s. 6d. each, delivered free. Orders received by
WILLIAM HANN AND SON,
HETTON COLLIERY, FENCE HOUSES. 95

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JOHN DAVIS,
MANUFACTURER OF MINING AND SURVEYING INSTRUMENTS,
DERBY.
MAKER (by appointment) of HEDLEY'S DIALS.
Price List on application.
STERNE'S PATENT PNEUMATIC SPRINGS FOR COAL CAGES.
Price £8 10s. per set of four. 96

IMPROVED APPLICATION OF WATER POWER.

THE TURBINE.

MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO FOUNDRY, BELFAST, after twenty years of experience, have brought their IMPROVED TURBINE to great perfection.

It is applicable to all practicable heights of fall, giving much greater power from the water than any other kind of water-wheel.

On low falls it has the great advantage of not being impeded by floods or backwater.

It is particularly well adapted for situations where the quantity of water is variable, and where all other wheels fail.

Its motion is extremely regular, and, when desired, a governor can be applied effectively.

This wheel is at work in a great many places, to which reference will be given. 97

MILNER'S STRONG HOLDFAST AND FIRE-RESISTING SAFES,

CHESTS, DOORS, AND STRONG ROOMS,
With the progressive and recent improvements effected after half a century's experience, effectually guard against FIRE and BURGLARS.
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(ESTABLISHED 1770.)
MANUFACTURERS OF EVERY DESCRIPTION OF IMPROVED
PATENT FLAT AND ROUND WIRE ROPES,
From the very best quality of charcoal iron and steel wire.
PATENT FLAT AND ROUND HEMP ROPES.
HIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULING, OIL SHEETS, BRATTICE CLOTHS, &c.

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GARNOCK BIBBY, AND CO.,

CHAPEL STREET, LIVERPOOL,
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WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD of STRENGTH. 100

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MESSRS. NICHOLLS, MATHEWS, AND CO. have FOR SALE ENGINES of VARIOUS SORTS and SIZES, AND SEVERAL GOOD TEN TON BOILERS. All are in excellent condition, and well worthy the attention of purchasers. Also, a WATER WHEEL, 35 ft. diameter, 3 ft. 2 in. breast, with iron axle, complete; and one 12 head STAMPS, axle, stands, frames, 12 heads of stamps, iron lifters, and two driving-wheels, complete.

Full particulars may be obtained by applying to Messrs. NICHOLLS, MATHEWS and Co., Tavistock Foundry, Tavistock. 101

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PATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER.

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Gentlemen going abroad for mining purposes instructed in assaying, and the most improved methods of reducing gold, silver, and other metals.

MINING PROPERTIES INSPECTED AND REPORTED ON. 103

NOTICE TO INVESTORS.

STATISTICS OF THE MINES OF CORNWALL AND DEVON WITH OBSERVATIONS UPON THEM.

I beg to inform the public that my work, under the above title, for 1869, will be published early in January, and will contain the following particulars, viz.:—The geological position, present prospects, names of purser, manager, and secretary, with statement of the annual returns of each mine during the last ten years, and of dividends paid to the present time.

This work will show with completeness and explicitness a variety of particulars not afforded in any other publication, but which it is important, especially for investors, to know—such as depth of mine, hands employed, returns, length of time at work, &c.

Only a limited number of copies will be issued. THOMAS SPARGO.

Subscribers' names will be received at my office, 224 and 225, Gresham House, Old Broad-street, London, E.C., and at the office of the MINING JOURNAL. 104

MUSHET'S
TITANIC CAST STEEL,

FOR
BORERS, ROCK-DRILLING MACHINES, LATHE TOOLS, DRILLS, CHISELS, TAPS AND DIES, &c., &c. SOLID CAST-STEEL HAMMERS AND SLEDGES, FILES, &c.

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COLEFORD, GLOUCESTERSHIRE.

AGENTS FOR SCOTLAND,—
MESSRS. JOHN DOWNIE AND CO., 1, ROYAL BANK PLACE, GLASGOW.
Where useful samples may be obtained. 105

HEATON'S PATENT.

THE LANGLEY MILL STEEL & IRONWORKS COMPANY (LIMITED),

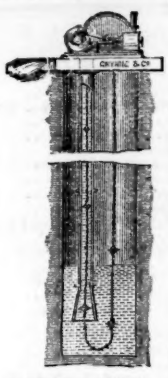
LANGLEY MILL, NEAR NOTTINGHAM,

Are now making Cast-Steel suitable for Tools, Taps, Dies, Chisels, &c., &c., Shear Steel, and Iron of a very superior quality, by their direct process, under the superintendence of the Patentee.

The range of quality which this process secures renders the Steel and Iron suitable for almost every purpose to which these metals can be applied. Also, CAST-STEEL CASTINGS of all kinds from PATTERNS or DRAWINGS. 106

PATENT FLEXIBLE TUBING,

AND BRATTICE CLOTH FOR MINES
MANUFACTURED BY
ELLIS LEVER,
WEST GORTON WORKS, MANCHESTER. 107



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Worked direct by Steam-Engine.

These pumps work without valves or packing, and raise a considerable quantity of water. They will lift sand, mud, or grit without choking, and require only very inexpensive repairs.

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As supplied to the Admiralty Graving Docks, Malta, to lift from 200 to 2000 gallons per minute. The engine is of inverted vertical cylinder construction. The pump barrel and piston are of gun-metal, and the whole very strong and compact.

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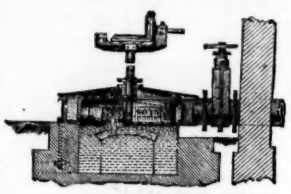
A very neat and extremely compact arrangement; will work for years without getting out of order. These pumps are peculiarly adapted for mines, for which great numbers have been supplied in situations where no other pump could be applied for want of space. They are equally adapted for use as feed-pumps, by driving them with strap from a rigger in place of the fly-wheel.



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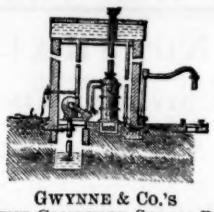

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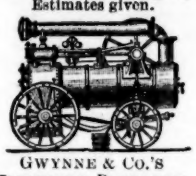
As Applied to Railway Stations.

The vertical boiler supplies the engine with steam, the pump discharging the water lifted from the well into the tank above, whence it may be drawn as occasion requires, for feeding locomotives, washing the carriages, as a fire-engine, &c. Estimates given.



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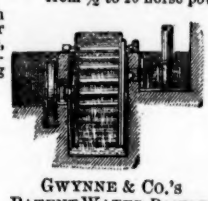
Light, simple in construction, durable, and economical, and very superior to "agricultural" engines. From 2½ to 30 horse power.

GWYNNE & Co.'s PATENTED WIND-POWER PUMPING MACHINERY.
Designed for Drainage and Irrigation Purposes

Suitable also for supplying the mansions of noblemen or gentlemen. Works continuously day and night without attention. Made from ½ to 20 horse power.



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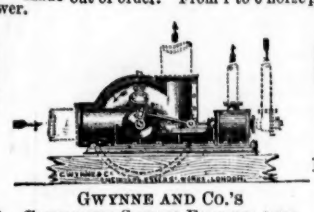
Extremely useful wherever water-power is available. The centrifugal pump is worked by gear from the water-wheel. Suitable for supplying country mansions with water. No expense when once fitted. Made of all powers.

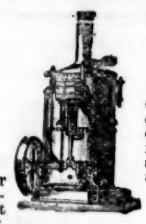
GWYNNE & Co.'s IMPROVED BULLOCK OR HORSE POWER PUMPING MACHINERY.

For situations where steam, water, or wind power are not available. Portable, easy to erect, and not liable to get out of order. From 1 to 6 horse power.



GWYNNE AND Co.'s COMBINED STEAM-ENGINE AND PATENT CENTRIFUGAL PUMP.

Small and powerful, low in cost, economical in work. No skilled labour required. Inexpensive foundations. First Prize Medal awarded at Paris last year for this arrangement.



GWYNNE & Co.'s IMPROVED VERTICAL STEAM-ENGINE.

Occupies little space, compact, safe, and easy to work. Made from the very best selected materials. Of all powers from 2 to 20 horse.

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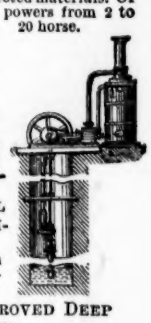
With or without expansion gear, for economical working. From 4 to 100 h. p.



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Worked direct by steam-engine at the mouth of the well. This arrangement is invaluable in situations where, from peculiar circumstances, the centrifugal pump is inapplicable.

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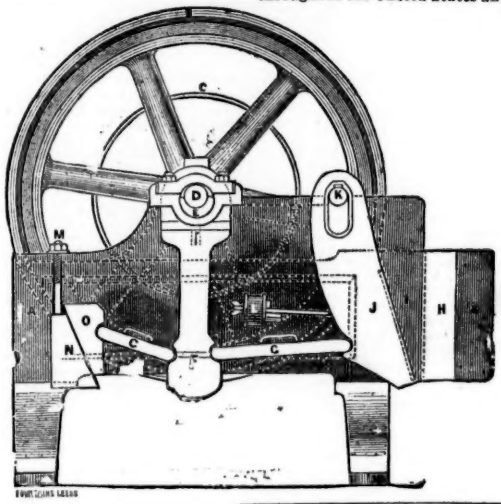
BLAKE'S PATENT STONE BREAKER,

OR ORE CRUSHING MACHINE,

FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.
For the Parys Mining Company, JAMES WILLIAMS.
H. R. Marsden, Esq.

Ecton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw s about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.
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Ovoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS.

General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or $75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered a third machine for this estate. SILAS WILLIAMS.

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H. R. MARSDEN, SOHO FOUNDRY,

MEADOW LANE, LEEDS,

ONLY MAKER IN THE UNITED KINGDOM.

CAUTION!

BLAKE'S PATENT STONE BREAKER,

In Chancery.

BLAKE v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor WOOD having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

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THE NEW PATENT DOUGLAS TURBINE WHEEL.

Messrs. G. H. LORD and Co. beg respectfully to call the attention of all parties interested in water power to their

NEW PATENT DOUGLAS TURBINE WHEEL,

The unrivalled success of which is now established beyond a doubt. These TURBINES are now working on falls from 18 inches to about 100 feet, and are found to give the highest percentage of power of any Water-wheel Turbine or Engine yet brought before the public, while from the simplicity of their construction they entail a proportionate decrease of amount of outlay, repair, &c.

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ENGINES AND BOILERS COMBINED,

From 2 to 20-horse power. Small sizes usually ready for delivery.

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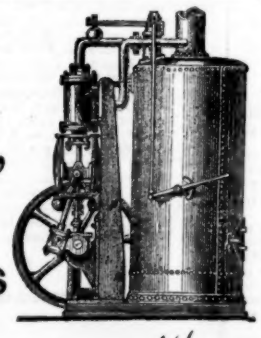
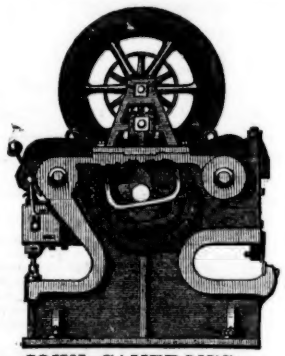


BICKFORD'S PATENT SAFETY FUSE

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION" held in Paris, in 1855; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; and at the "UNIVERSAL EXPOSITION, in Paris, 1867.

BICKFORD, SMITH, AND CO., of TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—

EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.



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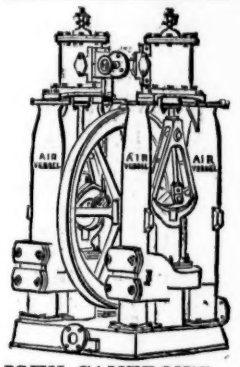

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From 2 to 12 in. diameter,
SINGLE AND DOUBLE-ACTING
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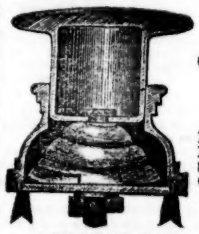

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N.B.—CASES OF RECENT INFECTION CURED IN TWO DAYS.
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Just published, post free for two stamps.

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WONDERFUL MEDICAL DISCOVERY, showing the true causes of Nervous, Mental, and Physical Debility, lowness of Spirits, Indigestion, Want of Energy, Premature Decline, with plain directions for perfect restoration to health and vigour in a few days, WITHOUT MEDICINE.
Sent free on receipt of one stamp, by W. HILL, Esq., M.A., Berkeley Ho South-crescent, Russell-square, London, W.C.

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INVESTMENTS in PUBLIC SECURITIES effected on the most advantageous terms.

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2 Wheal Seton, £66.	3 East Basset, £8 15s.	50 Port Phillip.
50 South Condurrow, 19s	60 Drake Walls, 19s.	5 Great Laxey, £20½.
20 Wt. Gt. Work, £2 8 9	15 Chiverton Moor, £6 2 6	10 East Caradon, £8 2 6
10 East Lovell, £8 16s 3d	5 Wt. Chiverton, £60¾.	2 New Seton
50 New Lovell, £1 14s.	15 Chiverton, £5 18s.	10 Trelawny.
10 Yudanamutana.	6 Great Wh. Vor, £12.	3 Herodsfoot.
85 New Clifford.	50 Don Pedro.	40 Kitty, (St. Agnes).
50 Frontino, 9s. 6d.	10 Marke Valley, £9 2 6	50 Lovell Consols.
50 Chontales, £2 12s. 6d.	100 Prince of Wales, £1 9s 6	100 Tamar Valley.
		20 Hingston Down.

*** Shares in the above list having no price affixed we are in a position to deal in at the market price of the day.

Parties of respectability, desirous of buying shares for future payments, can have every facility afforded them.

Seventy-five per cent. advanced on all stocks recommended by and purchased through this Agency.

TAMAR VALLEY SILVER-LEAD AND NEW CLIFFORD COPPER MINES strongly recommended. Full particulars on application.

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TO CAPITALISTS AND INVESTORS.

MESSRS. T. A. MUNDY AND CO. have FOR SALE a QUANTITY of MISCELLANEOUS SHARES, many of them very great bargains, and unattainable through any other channel. Dividends may be safely secured varying from 8 to 20 per cent.

Special attention given to *bona fide* English and Foreign Mining Shares.

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INVESTMENTS.

MESSRS. FAIRBAIRN AND CO., MINING ENGINEERS, STOCK AND SHARE DEALERS, No. 160, GRESHAM HOUSE, OLD BROAD STREET, LONDON, TRANSACT BUSINESS, for cash or account, in Stock Exchange or other Securities.

Our "Guide" for the present month will shortly be ready, and can be had free upon application. It contain particulars of the best paying and safest progressive undertakings, Stocks, Debentures, Bonds, and Shares.

A daily Price List, showing the latest quotations, with special remarks upon Mines, Banks, Railways, Gas, and Water Companies, together with English and Foreign Stocks and other Securities.

Published every evening at Six o'clock, and will be forwarded on receipt of stamped envelope.

CHONTALES GOLD COMPANY.—FULL PARTICULARS of the DIFFERENT CLASSES of SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, Austinfriars, E.C.

MR. THOMAS THOMAS, ASSAYER, &c., COPPER ORE WHARVES, SWANSEA.

SOUTH MERLLYN MINE COMPANY.

Consisting of 1000 Shares.

Investors and speculators will do well to read the report of Captain W. T. Harris on this mine, published to-day in these columns.

The South Merllyn sett is surrounded by numerous valuable properties, and the veins in the rock (white limestone) have invariably proved rich.

Address, for further particulars, to Mr. E. J. BARTLETT, No. 30, Great St. Helen's, London, E.C.

SOUTH CARN BREA MINE,

IN THE PARISH OF ILLOGAN, CORNWALL.

Divided into 5000 shares.

TO BE CONDUCTED ON THE COST BOOK PRINCIPLE.

A Committee of Management to be chosen from the first general meeting.

This mine is situated in the parish of Illogan, and is bounded on the north by the celebrated Carn Brea Mines; south, by North Basset; south west, by West Basset; and east, by Wheal Uny. It was suspended in June, 1866, when the price of tin had reached its lowest price, £42 10s. per ton; the loss, nevertheless, on the last six months' working was only £6; at the present price of tin, £60 per ton, a profit of over £300 would have been the result.

The engine-shaft is sunk to the depth of 130 fathoms, and the mine is dry to the 85 fathom level, about 50 fathoms have to be drained to reach the bottom, which would take four or five months to accomplish. In the meantime returns of tin could be made from the ground left standing above the 85 fathom level.

The reports, by agents who inspected the mine before the water was let in, shew that the north part of the lode, from the 118 to the 128, is standing entire, and is worth about £20 a fathom. This point alone shews a large reserve of tin ground discovered, which, with the present price of tin, can be worked at a good profit.

Adjoining this mine, to the east, is Wheal Uny, and the workings are on the same lode that is there producing such large quantities of tin; a very important feature is, that the shaft is now sunk to the depth, 130 fathoms, at which a marked improvement took place in the quality of the tin ore at Wheal Uny, and where, as the reports shew, there is a similar improvement in South Carn Brea.

The machinery and plant have remained undisturbed on the mine, and comprise a pumping-engine, with pitwork to the bottom of the shaft; a winding-engine, a stamping engine with 68 heads of stamps attached; dressing-floors, laid out with all the improved apparatus for returning tin; burning-house, smiths' and carpenters' shops, and everything necessary for extensive working.

These are to be taken over by the company at a valuation, each party chosing a valuer, and in case of their differing, a third to be called in to decide. The sum, thus agreed on, to be paid in four equal quarterly instalments.

Application for shares to be made either to Messrs. WATSON BROTHERS, 1, St. Michael's Alley, Cornhill, London, or to Messrs. R. H. PIKE and SON, Camborne.

The mine is divided into 5000 shares, of which nearly one-half are already applied for.

It is proposed to make a call of 5s. per share at the first meeting, and it is confidently expected that about 20s. per share, will be sufficient to bring the mine into a profitable state.

A detailed prospectus with reports will be forwarded on application.

CWM DWYFOR (NORTH WALES) COPPER AND SILVER-LEAD MINES COMPANY (LIMITED),

INCORPORATED UNDER THE COMPANIES ACTS, 1862 AND 1867,

Capital £12,500, in 12,500 shares of £1 each,

Fully paid-up on allotment.

BANKERS.

METROPOLITAN BANK (LIMITED), LONDON.

SECRETARY—Mr. G. CHAMBERS.

OFFICES.

ST. CLEMENT'S HOUSE, ST. CLEMENT'S LANE, LONDON, E.C.

Applications for shares in this remarkable mine, for prospectuses, and forms, and notices of the mine, its geological and mineral character, and extraordinary physical advantages, may be addressed to the secretary, at the offices of the company, where also specimens of the ores can be seen.

THE MINING ASSOCIATION (LIMITED)

Are prepared to receive applications for shares in the

EAST JAVALI AND PAVON GOLD AND SILVER MINING COMPANY

(LIMITED),

To be Incorporated under the Companies Acts, 1862 and 1867.

Capital £20,000, in 8000 shares of £2 10s. each,

Of which 4000 are intended to be issued, as fully paid up, to the vendors; but such shares to participate in dividends to the extent only of what may for the time being be paid up on the other shares. Five shillings per share on the other 4000 shares to be paid on application, and 15s. on receipt of advice that the purchase has been completed: further calls not to exceed 10s. per share, at intervals of not less than three months. About 1700 shares are already agreed to be taken, leaving about 2300, for which applications are invited.

PROVISIONAL DIRECTORS

(See full prospectus).

SOLICITOR.

TUFNELL SOUTHGATE, Esq., 7, King's Bench-walk, Temple.

BANKERS.

THE IMPERIAL BANK (LIMITED), LOTHBURY.

OFFICES,—No. 8, AUSTINFRIARS, LONDON.

The object of this company is to purchase and work the Cabezales, Santa Rita, and Costa Rica Mines, adjoining the Pavon Mine, and on the same lode as the Javali and Pavon.

Capt. Holman, formerly under Messrs. J. Taylor and Sons, in Australia, and having had great experience in the gold mines in Brazil, examined this property, and states that with the exception of the Javali itself he has never seen so fine a lode as this in any other district. His report will be found annexed to the full prospectus.

It is estimated that 12 heads of stamps will pulverise 1000 tons of quartz per month, and that 14s. per ton will cover all expenses; but taking only 800 tons, and the costs at 15s. per ton, and allowing a yield of only an average of half an ounce of gold per ton (which is expected to be three-quarters of an ounce per ton), the profits would be £600 per month, or £7200 per annum, which alone would pay nearly 50 per cent. on the estimated outlay, including the purchase money. By subsequently and gradually adding to the number of stamps the profits would be proportionably increased.

Full prospectuses, with the reports, can be obtained at the office, 8, Austinfriars, London.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c, Cheshire*	10 0 0	—		10 1 8	0 10 0	July 1868
200	Botallack, t. c, St. Just	91 5 0	200	175 200	488 15 0	5 0 0	May 1866
4000	Brookwood, c, Buckfastleigh	1 11 0	—		0 12 6	0 2 6	Aug. 1868
1000	Bronfloyd, l, Cardigan*	12 0 0	—		10 7 0	0 6 0	Oct. 1868
5094	Bwlch Consols, s-l, Cardigan	4 0 0	—		0 5 0	0 5 0	June 1868
6400	Cashwell, l, Cumberland*	2 10 0	—		0 3 0	0 1 6	Aug. 1868
916	Cargoll, s-l, Newlyn	15 5 7	20		15 5 0	0 10 0	Oct. 1868
1280	Chanticleer, l,	0 7 8	—		0 1 0	0 0 6	Nov. 1868
2450	Cook's Kitchen, c, Illogan‡	19 14 9	13	12½ 13⅛	1 12 0	0 5 0	Oct. 1868
509	Creegbrawse and Penkevil, t	—	—		2 5 0	1 5 0	April 1868
867	Cwm Erfin, l, Cardiganshire*	7 10 0	—		29 3 0	0 15 0	Oct. 1868
128	Cwmystwith, l, Cardiganshire	60 0 0	—		383 10 0	2 0 0	Aug. 1868
280	Derwent Mines, s-l, Durham	300 0 0	—		177 0 0	2 10 0	July 1868
1024	Devon Gt. Consols, c, Tavistock†	1 0 0	—	310 320	1120 0 0	5 0 0	Nov. 1868
656	Ding Dong, t, Gulval‡	49 14 6	25		0 10 0	0 10 0	Sept. 1867
358	Dolcoath, c, t, Camborne	128 17 6	400	390 400	864 10 0	7 0 0	Dec. 1868
6144	East Caradon, c, St. Cleer†	2 14 6	6	7⅜ 7⅞	14 11 6	0 2 0	July 1867
300	East Darren, l, Cardiganshire	32 0 0	—		162 10 0	2 0 0	Nov. 1868
128	East Pool, t, c, Pool, Illogan	24 5 0	—		447 10 0	5 0 0	Nov. 1868
1906	East Wheal Lovell, t, Wendron.	3 9 0	9	8½ 9	4 1 6	0 10 0	May 1868
2800	Foxdale, l, Isle of Man*	25 0 0	—		72 0 0	0 10 0	Sept. 1868
5000	Frank Mills, l, Christow	3 18 6	3¾	3 3¼	3 5 6	0 5 0	Feb. 1866
3950	Gawton, c, Tavistock	3 10 6	—	1⅛	0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, l, Isle of Man*	4 0 0	21	20 21	9 15 0	0 10 0	Dec. 1868
5908	Great Wheal Vor, t, c, Helston†	40 0 0	12½	11⅛ 12½	13 11 0	0 7 6	Sept. 1868
1024	Herodsfoot, l, near Liskeard†	8 10 0	45	43 45	48 0 0	1 10 0	Oct. 1868
6000	Hingston Down, c, Calstock†	5 10 6	—		0 10 0	0 5 0	April 1866
165	Levant, c, t, St. Just	10 8 1	—		1095 0 0	2 0 0	July 1868
400	Lisburne, l, Cardiganshire	18 15 0	—		510 10 0	1 10 0	Nov. 1868
3000	Maes-y-Safn, l, Flint*	20 0 0	—		4 0 0	0 5 0	Oct. 1868
9000	Marke Valley, c, Caradon	4 10 6	9¼	9 9¼	4 14 0	0 5 0	Oct. 1868
3000	Minera Boundary, l, Wrexham*	1 0 0	—		0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co. l, Wrexham*	25 0 0	—		243 13 6	4 0 0	Nov. 1868
20000	Mining Co. of Ireland, c, l, cl.	7 0 0	12¾	11⅝	—	9 p.ct.	July 1868
40000	Mwyndy Iron Ore*†	3 5 0	—		0 8 6	0 2 0	Mar. 1868
200	Parys Mines, c, Anglesey*	50 0 0	—		162 10 0	2 10 0	Aug. 1868
12800	Prince of Wales, t, Calstock	0 12 6	34s.	28s. 30s.	0 8 6	0 1 0	Nov. 1868
1120	Providence, t, Uny Lelant†	10 6 7	34	32½ 35	85 12 6	0 10 0	Sept. 1868
512	South Caradon, c, St. Cleer†	1 5 0	—		602 10 0	5 0 0	Nov. 1868
6000	South Darren, l, Cardigan*	3 6 6	—		0 13 0	0 1 6	Aug. 1868
937	South Wh. Crofty, c, Illogan	24 10 10	—	13 14	1 0 0	0 10 0	Sept. 1868
496	So. Wh. Frances, c, Illog.†‡	18 18 9	—	14 15	374 13 6	1 0 0	Mar. 1868
508	Summer Hill, l, Mold	3 18 6	—		2 5 6	0 5 0	Feb. 1868
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	16½	15½ 16½	20 1 0	0 5 0	Nov. 1868
2000	Trumpet Cons., t, Helston	11 10 0	15		13 10 0	0 10 0	Oct. 1868
3000	W. Chiverton, l, Perranzabuloe†	10 0 0	61	59 61	31 7 6	2 0 0	Nov. 1868
5000	West Godolphin, t, c, Breage	0 1 0	1⅜		0 2 0	0 2 0	Dec. 1867
400	W. Wheal Seton, c, Camborne†	47 0 0	195	185 190	616 0 0	6 0 0	Dec. 1868
512	Wheal Basset, c, Illogan†	5 2 6	70	60 65	632 10 0	1 0 0	June 1868
1024	Wheal Friendship, c, Tavistock	20 0 0	—		300 10 0	0 10 0	Nov. 1866
512	Wheal Jane, s-l, Kea	10 10 0	45		3 0 0	2 0 0	Nov. 1868
4295	Wheal Kitty, t, St. Agnes	5 4 6	3½	3¾ 4	3 11 0	0 2 0	Nov. 1868
1024	Wheal Mary Ann, l, Menheniot†	8 0 0	21	22 24	66 17 6	0 17 6	Dec. 1868
80	Wheal Owles, t, St. Just‡	70 0 0	—		350 13 0	7 10 0	Feb. 1868
396	Wheal Seton, t, c, Camborne	58 10 0	65	60 65	254 15 0	2 0 0	Feb. 1868
3000	Whitewell Lead, Clitheroe*	0 5 0	—		1 0 0	0 10 0	Dec. 1867
17000	Wicklow, c, i, Wicklow	2 10 0	10⅜		49 1 0	0 5 0	Oct. 1868

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
35000	Alamillos, l, Spain*†	2 0 0	1¾	1¼ 1¾	0 4 6	0 2 0	Sept. 1868
20000	Australian, c, South Australia†‡	7 7 6	—		0 1 6	0 0 6	Aug. 1868
15000	Cape Copper Mining*†	7 0 0	11½	11⅜	3 17 6	0 15 0	Nov. 1868
30000	Central American Association*†	1 10 0	—		—	—	
76162	Don Pedro North del Rey*†‡	0 14 0	4¼	3¾ 4	1 0 3	0 3 6	Nov. 1868
70000	English and Australian, c‡	2 10 0	—		—	0 1 0	Feb. 1868
25000	Fortuna, l, Spain*†	2 0 0	2	1½ 2	1 11 10	0 2 6	Sept. 1868
20000	Gen. Mining Assoc., Nova Scotia†	20 0 0	—		23 10 0	0 15 0	June 1867
10000	Gonnesa, l,*	5 0 0	—		10 per cent.		Aug. 1868
68000	Kapunda Mining Co., Austra†‡	1 0 0	—		0 1 10	0 0 6	Nov. 1868
15000	Linares, t, Spain*†	3 0 0	3	2½ 3	11 15 0	0 3 4	Sept. 1868
50000	Panulcillo, c, Chili*†	3 0 0	—	½ 1	10 per cent.		Yearly.
6000	Peel River Land and Mineral*†	100 0 0	—		—	—	
10000	Pontgibaud, s-l, France†	20 0 0	—		5 6 2	0 19 7	Dec. 1868
100000	Port Phillip, g, Clunes†	1 0 0	2	1¾ 2	1 3 0	0 1 0	Oct. 1868
120000	Scottish Australian Min. Co.†	1 0 0	1⅛	⅞ 1⅛	10 per cent.		Nov. 1868
11000	St. John del Rey, Brazil*†	15 0 0	16	14¾ 15¼	81 10 0	4 5 0	Dec. 1867
	Swedish Sulphur Ore*	2 10 0	3		7½ per cent.		Dec. 1868
13500	Vancouver Coal Mining*†‡	6 0 0	9½	7¾ 8¼	2 2 6	—	Nov. 1868
50000	Victoria (London) [25000 £1 pd., 25000 12s. 6d. pd.]				0 9 7	0 0 7	July 1868
40000	West Canada Mining Co.*	1 0 0	—		0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
50000	Anglo-Argentine, s, Argentine Republic*	1 0 0	—		
100000	Anglo-Brazilian, g*†	0 10 0	½		Nov. 1866
12500	Anglo-Italian, g*†	0 10 0	⅞		Jan. 1868
20000	Australian United, g	1 0 0	—		Mar. 1868
2464	Burra Burra, c, South Australia‡	5 0 0	—		
20000	Capula, s, Mexico*†	1 17 6	1⅜		May 1868
30000	Chontales, g, s, Nicaragua*†	5 0 0	3⅛	2½ 2¾	Mar. 1868
12000	Cobre Copper Company, c, Cuba†‡*	45 10 0	—		Jan. 1868
10000	Copiapo Mining Company, Chili†‡	16 10 0	—		
10000	Copiapo Smelting, Chili*	10 0 0	2		April 1866
300	Copper Miners' Co. of South Australia* [150 £100 pd., 150 £70 pd.]				Nov. 1866
15000	El Chico Silver Mining and Reduction Company*	5 0 0	—		Nov. 1866
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	—		Fully pd.
50000	Frontino and Bolivia, g, New Granada*†	1 17 6	½	8s. 10s.	May 1868
150000	General Brazilian*	0 2 0	⅞	⅛ ¼	
80000	Great Northern, c, South Australia†	1 11 6	—		Sept. 1862
50000	Javali, g, Nicaragua	1 0 0	—		June 1868
7927	Lusitanian (Portugal)†‡	2 15 0	—		Dec. 1866
83640	Mariquita, g, s, New Granada	1 0 0	—		Feb. 1868
12500	Nerbudda Coal and Iron, India*†	6 0 0	—		Dec. 1867
51000	New Quebrada, c, Venezuela*†	4 4 0	—		
15000	Otea, c, New Zealand*	2 0 0	—		Fully pd.
80000	Pestarena United, g, Italy*†	2 17 6	1½	1¼ 1½	
10178	Rhenish Consolidated, l [6000 £5 pd., 4178 £2 10s. pd.]	—	—		May 1866
100000	Rossa Grande, g, Brazil*†	0 14 0	—	⅜ ½	June 1867
15000	San Pedro del Monte, s, Mexico*	4 0 0	—		Sept. 1866
10000	San Roque, l, Spain	5 0 0	—		Fully pd.
10000	Sao Vicente, Brazil*†	1 0 0	2¾	2⅞ 3	Oct. 1868
100000	Taquaril, g, Brazil*	0 7 6	⅝	⅜ ⅝	Oct. 1868
43174	United Mexican, s, Mexico†‡*	28 5 2	2½	1¾ 2¼	May 1868
30000	Val Antigoria, g, Italy*	1 2 6	—		
6000	Val Sassam, s, c, l, Italy*†	8 0 0	—		Aug. 1868
45000	Victor Emanuel, c, Italy*	1 0 0	—		Fully pd.
20000	Washoe, g, Nevada†	5 0 0	—		Fully pd.
80000	Worthing, c, South Australia*†	1 0 0	⅝	¼ ⅜	Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	—	⅛ ¼	Fully pd.
45000	Yudanamutana, c, South Australia*†‡	3 0 0	2¼	2 2¼	Fully pd.

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
12000	Brynpostig, Montgomery, l*	1 0 0	—		
1000	Carn Brea, c, t, Illogan‡	30 0 0	20	20 22½	June 1868
3000	Chiverton, l, Perranzabuloe	11 0 0	6	5¾ 6¼	Nov. 1868
3000	Chiverton Moor, l, Perranzabuloe	6 13 6	6⅝	6 6¼	Nov. 1868
2880	Clifford Amalgamated, c, Gwennap‡	40 17 6	—		Oct. 1868
12800	Drake Walls, t, Calstock‡	2 5 0	¾	17s. 19s.	Dec. 1866
512	East Basset, c, Redruth†‡	37 0 0	9	8 9	Nov. 1868
6000	East Carn Brea, c, Redruth‡	4 0 0	½	8s. 10s.	June 1868
6000	East Grenville, c, Camborne	4 2 6	3½	3¼ 3½	Nov. 1868
4000	East Wheal Russell, c, Tavistock†	13 13 6	—		Oct. 1868
6144	Gonamena, c, St. Cleer	7 12 9	—		Dec. 1868
5000	Great North Downs, c, Redruth	6 13 0	2	2 2¼	Feb. 1867
4800	Great Retallack, s-l, b, Perranzabuloe	2 19 6	—	2 2½	Oct. 1868
5143	Great South Tolgus, c, Redruth	1 8 0	—		April 1868
1798	Great Wheal Fortune, t, Breage	31 7 4	—		Mar. 1868
400	New Wheal Seton, c, Camborne	60 10 0	—		April 1868
3457	North Downs, c, Redruth	5 8 10	¾		Jan. 1868
695	North Roskear, c, Camborne	61 9 0	11	10 11	Nov. 1868
5936	North Treskerby, c, St. Agnes	1 12 4	⅜	10s. 12s.	Dec. 1860
3000	North Wheal Chiverton, l, Perranzabuloe	4 10 0	—		Nov. 1868
1024	Rose and Chiverton United, l, Newlyn	6 0 0	6¾		Aug. 1868
6138	South Condurrow, t, c, Camborne	4 8 6	1	17s. 19s.	Oct. 1868
1000	South Merllyn, l, Flint	1 0 0	—		
940	St. Ives Consols, t, St. Ives‡	10 15 0	8		Nov. 1867
920	Stray Park, c, t, Camborne†‡	45 5 8	7	4½ 5½	April 1868
548	Trelyon Consols, t, St. Ives	16 0 0	—		Dec. 1866
1000	West Basset, c, Illogan†‡	2 0 0	—		May 1868
1024	West Caradon, c, St. Cleer‡‡	25 0 0	4	3 4	Nov. 1868
12800	West Drake Walls, c, Calstock	0 6 0	—	6s. 8s.	Nov. 1868
2582	West Great Work, t, Breage	5 11 0	2¾	2¼ 2¾	June 1866
6000	West St. Ives, t, c, St. Ives	0 3 6	⅞		Oct. 1868
512	West Wheal Frances, t, Illogan	106 15 0	42	40 42½	
5000	West Wheal Kitty, t, St. Agnes	3 4 0	½		Nov. 1868
6000	Wheal Agar, c, Illogan	7 13 0	—		Oct. 1868
512	Wheal Buller, c, Redruth†‡	28 5 0	—		Nov. 1868
811	Wheal Emily Henrietta, c, Illogan	20 0 0	20	19 21	Jan. 1868
5724	Wheal Grenville, c, Camborne†	10 8 0	1⅝	31s. 33s.	Sept. 1868
1040	Wheal Trelawny, s-l, Liskeard†	9 7 0	7	6⅛ 7⅛	Dec. 1867
5000	Wheal Uny, t, c, Redruth	10 14 6	4	3¾ 4	Oct. 1868

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.
4000	Ballacorkish, I. of Man, l, c*	4 0 0	—	
4000	Bedford Consols, c, Tavistock	3 0 6	—	
4000	Bedford United, c, Tavist.*	2 13 8	1⅞	1¾ 2
1248	Boscaswell, t, c, St. Just	7 6 0	—	
5000	Bottle Hill, t, Plympton	1 14 6	—	
5000	Bryn Gwiog, l, Flint	0 18 0	—	
1200	Bryn Gwyn, l, Mold*‡	9 0 0	—	
7500	Brynystwith, l*	0 10 0	—	
1000	Budnick Consols, c	2 5 0	—	
6000	Bwadrain Cons., s-l, Cardig.	3 2 0	—	
30000	Caldbeck Fells, l, Cumberld.*	1 15 0	12s.	9s. 1
1000	Camborne Consols, c	11 10 0	—	
11000	Cape Cornwall, t, c* [8000 £2 10s. pd., 3000 25s. pd.]			
5000	Capel Banhaglog, l, Mont.*	1 10 0	—	
914	Caradon Consols, c, St. Cleer	32 13 6	—	6 7
1000	Cardynham China-clay*	3 0 0	—	
6000	Carn Camborne, c, Cambrn.	2 9 0	⅝	⅜ ⅝
2000	Carnmarth Granite Co.*	—	—	
20000	Carysfort [3200 £2⅛ pd., 16800 £1 ½ pd.]			
2500	Central Minera, l, Wrexham*	3 1 6	—	
16000	Central Snailbeach l*	1 0 0	—	
3000	Chiverton Valley, l, Perranz.	2 0 0	3¾	3 3¼
2048	Colquite & Callington Un., c.	1 3 0	2⅝	2½ 2⅝
256	Condurrow, c, t, Camborne‡	76 10 0	—	
50000	Connorree, c, sul, Wicklow*	1 0 0	4s.	
983	Copper Hill, c, Redruth‡	12 10 0	—	
1000	Cornwall Hematite Co.*	5 0 0	—	
1055	Craddock Moor, c, St. Cleer‡	14 0 0	—	
12000	Crelake, c, Tavistock	3 12 0	—	
6000	Cuddra, t, St. Austell	5 10 0	—	
300	Cwm Daren, Cardigan*	—	20	20
740	Eaglebrook, l, Talybont*	19 15 0	—	
1000	East Basset and Grylls, t	3 5 0	—	
4000	East Chiverton, l, Perranz.	3 4 9	—	
4000	E. Gunnislake & S. Bed. c.	11 1 6	—	
6000	East Laxey, l, Isle of Man	3 0 0	—	
4096	E. New Wh. Lovell, t, Wend.	0 5 0	⅜	¼ ⅜
5000	E. Rosewarne, c, t, Gwinear	2 19 0	—	
6000	East Snaefell, l, I. of Man*	3 0 0	—	
5610	East Seton, c, Camborne	0 16 6	—	
1190	E. Wh. Agar, c, St. Cleer	12 17 0	—	
6000	East Wheal Reeth, Lelant	—	1¼	1 1¼
5000	E. Wh. Rose Con., l, Per.*	2 10 0	—	
6000	Ebury Lead Min. Co., Flint*	1 15 0	—	
1026	Garden, c, Morvah	6 15 3	—	
6000	Gen. Min. Co. for Ireland, c.	5 10 0	1	
40000	Glasgow Caradon, c* [30,000 £1 p., 10,000 15s. p.]			
10000	Glan Alun, l, Mold*	0 12 0	⅝	12s. 13s.
5700	Goginan, Cardigan, l.	12 10 0	—	
6000	Gothic, s-l, Cardigan*	2 10 0	—	
486	Grambler & St. Aubyn, c†‡	74 0 0	—	
10000	Great Cwmsymlog, s-l*	1 15 0	—	
4096	Great Caradon, c, St. Ive	4 3 0	—	
12500	Gt. No. Laxey (Isle of Man)*	1 0 0	—	¼ ⅜
6000	Great N. Tolgus, c, Illogan	1 0 0	—	
15000	Great Rhosesmor, l	5 0 0	3¾	
6000	Gt. S. Chiverton, s-l, Perranz	1 18 6	—	
6000	Great Western, t	2 0 0	—	2 2¼
3313	Gt. Wh. Baddern, t, Devoran	7 17 6	—	
119	Great Work, t, Germoe	100 0 0	—	
10240	Gunnislake (Clitters'), t, c	4 19 0	—	
6068	Gwydyr Park, l, Llanrwst	1 11 0	—	
6400	Harwood, l, Durham*	0 7 6	—	
1019	Leeds and St. Aubyn, t, c	19 13 4	—	
1000	Llywernog, l, Cardiganshire	12 10 0	—	7¼
5120	Lovell Consols, Wendron, t.	0 6 0	—	
6000	Maudlin, c, Lostwithiel	4 7 0	—	
6000	Mid-Wales, l,*	2 10 0	—	
1000	Montgomeryshire, l, b*	3 0 0	—	
640	Mount Pleasant, l, Mold	4 0 0	—	
1024	Nangiles, t, c, Kea	32 10 0	—	
1500	New Chiverton, l, Perranz.	0 17 0	—	
6000	New Clifford, c., Gwennap*	3 0 0	3½	3 3½
6400	N. Crow Hill, l, St. Stephen.	3 6 6	—	
6514	New E. Russell, c, Tavistock	0 12 6	—	
20000	New Gt. Cons., c, Tavistock*	1 0 0	—	
6400	New Pembroke, St. Blaz. t, c	1 12 0	—	
3680	New Treleigh, c, Redruth	—	—	
6000	New Westminster, l	6 0 0	—	
4096	New Wh. Lovell, t, Wendron	1 19 6	1⅞	1⅝ 1¾
2000	N. Wh. Towan, c, t, Wendron	1 10 0	—	
5000	No. Dolcoath, c, Camborne	4 3 0	—	
1361	No. Grambler, c, Redruth	9 3 9	—	
6000	North Jane, t, s-l, Kenwyn	3 4 6	—	
2000	North Levant, t, c, St. Just	10 12 0	11	10½ 11
4000	No. Phœnix, c, Linkinhorne	4 11 0	—	
3240	North Pool, c, Illogan	6 3 6	—	
1024	No. Retallack, c, Perrazabuloe	2 0 0	—	
6000	North Wheal Basset, c, t†	5 0 0	—	
5610	N. Wh. Crofty, c, Illogan†	3 11 3	1½	1¼ 1⅛
12288	Okel Tor, c, Calstock	2 7 4	—	
8000	Old Gunnislake, c, Calstock	3 9 6	—	
6400	Par Consols, c, St. Blazey†‡	2 14 6	—	
8465	Pedn-an-drea, t, Redruth	7 3 6	—	
5000	Pendeen Consols, c, St. Just	7 5 0	—	
4000	Penhale United, s-l, Perran.*	2 15 0	—	
2177	Penhale Wh. Vor, t, c, Breage	6 2 6	—	
5000	Penhalls, t, St. Agnes	3 0 0	4	3¾ 4¼
1772	Polberro, t, St. Agnes	15 0 0	—	
6000	Prosper U., t, c, St. Hilary	9 14 0	—	¾ 1
4620	Redmoor, c, t, Callington	1 19 6	—	
6000	Reinnie Laxey, l, I. of Man*	4 10 0	—	
3000	Rhydtalog, s-l, Cardigan	0 5 0	—	
6000	Roaring Water, c*	2 15 0	—	
2000	Rosecliff and Tolcarne, l*	9 15 0	—	
5915	Rosewall Hill & Ransom, c.	3 10 0	¾	⅝ ⅞
10000	Royalton, t, St. Columb	1 1 0	1⅞	30s. 35s.
20500	Snaefell, l, Isle of Man*	1 0 0	—	
12000	Sortridge Cons., c, Tavistk.†	2 5 6	—	
512	South Basset, c, Gwennap	30 10 0	—	
3000	So. Chiverton, s, l, Perranz.	6 2 6	—	
3000	So. Fowey, c, Tywardreath	1 0 0	—	
5000	So. Gt. Work, t, c, St. Hilary	0 3 6	⅜	
3395	So. Herodsfoot, l, Liskeard	4 10 0	1¼	
30210	South of Scotland, c*t	1 0 0	—	
2739	South Trevenna, c,	2 10 0	—	
6000	South Wheal Grenville, t, c	1 5 6	—	
400	So. Wh. Seton, c, Camborne	83 13 0	—	
236	Spearne Consols, t, St. Just	4 4 4	—	
242	Spearne Moor, t, St. Just	6 2 0	—	
673	St. Ives Wh. Allen, t, St. Ives	18 18 7	—	
8771	St. Just Amalg., t,* [6000 £3 10s. pd., 2771 £2 5s. pd.			
300	Steeple Aston Iron Ore Co.	7 0 0	—	
7000	Stiperstones, l, Salop*	5 10 0	—	
6000	Tamar Valley, s-l, Beeralston	0 14 0	⅞	¾ 1
3500	Tin Hill, t, St. Austell	1 12 0	—	
501	Tresavean and Trethurrup	16 11 0	—	
4096	Trewetha, s-l, Menheniot	10 19 6	—	
1943	Treworlis, t, Wendron	11 15 4	—	
4200	Vigra and Clogau, c, Dolg.*‡	5 10 0	—	
256	West Damsel, c, Gwennap	38 10 0	—	
1000	West Devon Cons., c, Tavistck.	—	—	
12000	W. Maria & Fortes., c, Lam.	3 13 0	—	
12800	West Prince of Wales, c.	0 11 0	—	
1000	West Rose Down, c, Linking.	22 0 0	—	
512	West Tolgus, c, Redruth	62 0 0	36	
4096	W. Wh. Tremayne, St. Erth	0 12 0	—	
741	Wheal Basset and Grylls, t.	7 18 6	—	
6000	Wheal Crebor, c, Tavistock	2 9 0	—	¼ ⅜
4000	Wh. Emma, c, Buckfastleigh	3 19 0	—	
1560	Wheal Falmouth & Sperries	9 1 0	1½	
6000	Wheal Ida, s-l, St. Ive	1 6 6	—	
1024	Wh. Kitty, t, Uny Lelant†	3 10 6	—	
896	Wh. Margaret, t, Uny Le.‡	13 17 6	5	
728	Wheal Margery, St. Ives, t, c	27 4 0	—	
6000	Wheal Mary Florence, c*	2 6 0	—	
1000	Wh. Mary Hutchins, c, Plymp.	2 0 6	—	
2000	Wheal Rose, c, Scorrier	0 10 0	—	
1920	Wh. Trannack, c, Sithney	1 13 3	—	
1200	Wheal Trevenna, t, c*	10 0 0	—	

IRON AND COAL COMPANIES.

100	Bolckow, Vaughan, and Co.*	30 0 0	4 4¼	pm.
100	Charles Cammell and Co.*	80 0 0	38 36	dis.
32	Ebbw Vale Iron Co.*	27 10 0	13 12½	dis.
15	Hopkins, Gilkes, and Co.*	10 0 0	5½ 5	dis.
100	John Brown and Co.*	70 0 0	32 30	dis.
12½	Mersey Steel and Iron Co.*	11 10 0	8½ —	dis.
10	Midland Iron Company*	5 0 0	6½ 7	pm.
100	Parkgate Iron Company*	57 10 0	36½ 35½	dis.
50	Rhymney Iron Company	50 0 0	18 20	dis.
15	Ditto, New	15 0 0	5 6	dis.
50	Shotts Iron Company	50 0 0	19 —	dis.
100	Thames Iron Company*	100 0 0	70 —	dis.
20	Patent Shaft & Axletree Co.*	10 0 0	5 —	pm.
100	Sheepbridge Coal & Iron Co.*	50 0 0	26 24	dis.
100	Staveley Coal and Iron Co.*	60 0 0	27 28	pm.
35	Palmer's Shpbldg. & Iron Co*	25 0 0	7 6	dis.
10	Consett Iron Company*	7 10 0	1⅛ 1⅜	pm.

b, blende; *cl* coal; *c*, copper; *g*, gold; *l*, lead; *s*, silver; *sl*, slate; *sl*, silver-lead; *t*, tin; *z*, zinc.

*** Companies marked thus * have been incorporated with Limited Liability; those marked † have been admitted on the Stock Exchange, those marked thus ‡ have paid Dividends.

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